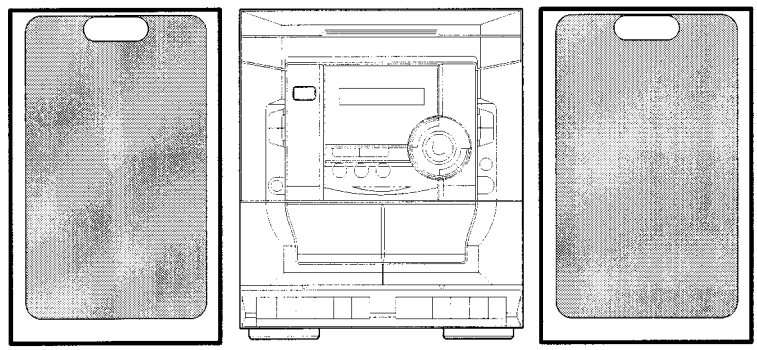
aiwa SERVICE

NSX-SZ103 K
NSX-SZ107 EZ



SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC TAPE MECHANISM : ZZM-2 PR1NC
BASIC CD MECHANISM : BZG-2 ZD4NC
BZG-2 ZD4N

SYSTEM	CD CASSEIVER	CD MECHANISM	SPEAKER	REMOTE CONTROLLER
NSX–SZ103	CX–NSZ103	BZG–2 ZD4NC	SX–NSZ102	RC–AAS11
NSX–SZ107	CX–NSZ107	BZG–2 ZD4N	SX–NSZ107	RC–ZAS17

- This Service Manual contains information about the difference between NSX-SZ103(K)/NSX-SZ107(EZ) and NSX-SZ100(EZ). If requiring other information, see Service Manual of NSX-SZ100(EZ), (S/M Code No. 09-00C-441-4R1).

- If requiring information about the CD mechanisim, see Service Manual of BZG-2, (S/M Code No. 09-00C-353-2N2)

SUPPLEMENT DATA

aiwa

S/M Code No. 09-012-441-4S1

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	16.8 dBf
Antenna terminal	75 ohms (unbalanced)

<MW tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<LW tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	EZ: Rated: 8 W + 8 W (6 ohms, T.H.D. 1 %, 1 kHz/DIN45500) Reference: 10 W + 10 W (6 ohms, T.H.D. 10 %, 1 kHz/DIN45324) DIN MUSIC POWER: 30 W + 30 W K: Rated: 15 W + 15 W (6 ohms, T.H.D. 1 %, 1 kHz/DIN45500) Reference: 18 W + 18 W (6 ohms, T.H.D. 10 %, 1 kHz/DIN45324)
Total harmonic distortion	EZ: 0.1 % (4 W, 1 kHz, 6 ohms, DIN AUDIO) K: 0.1 % (7.5 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 500 mV
Output	SPEAKERS: 6 ohms or more PHONES: 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 8000 Hz
Recording system	AC bias
Heads	Deck 1: recording/playback x 1, erase x 1 Deck 2: playback x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D/A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)

<Speaker system SX–NSZ102/SX–NSZ107>

Speaker system	1 way, bass reflex (magnetic shielded)
Speaker units	Full range: 100 mm cone
Impedance	6 ohms
Dimensions (W x H x D)	196 x 301 x 188 mm
Weight	1.5 kg

<General>

Power requirements	EZ: 230 V AC, 50 Hz K: 230 –240 VAC, 50 Hz
Power consumption	EZ: 45 W K: 58 W
Dimensions (W x H x D)	260 x 301 x 292 mm
Weight	EZ: 4.3 kg K: 4.5 kg

• Design and specifications are subject to change without notice.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A21-893-040		C-IC,NJM14558V-TE2
	87-A21-419-040		C-IC,NJM14558MD-TE2
	8B-NFC-602-030		C-IC,UPD780226GF-023-3BA
	87-A21-218-010		IC,NJL64H380A
	87-A21-443-040		C-IC,M62495AFP
	87-A21-695-010		IC,LA1845L
	87-A21-928-010		IC,LC72131D-N
TRANSISTOR			
	87-A30-494-080		TR,2SA1980G
	87-A30-476-010		TR,KTA1046Y
	87-A30-492-080		TR,2SC5343G<K>
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-A30-256-010		TR,2SD1933
	87-A30-255-010		TR,2SB1342
	87-A30-234-080		TR,CSC4115BC
	87-A30-091-080		FET,2SJ460
	87-A30-090-080		FET,2SK2541
	87-A30-062-080		C-TR,KRC104S
	87-A30-495-080		TR,2SA1981Y
	89-327-143-080		C-TR,2SC2714 (0.1W)
	87-A30-489-080		C-TR,KRA107S
	89-503-602-080		C-FET,2SK360E
	87-A30-086-040		C-TR,CSD1306E
	87-A30-484-080		C-TR,KRA102S
	87-026-610-080		TR,KTC3198GR<EZ>
	87-A30-615-080		TR,STC250<EZ>
DIODE			
	87-A40-455-090		DIODE,RL203 GW
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-777-080		ZENER,UZ30BSB
	87-A40-291-080		DIODE,1N4148 (CPT)
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-269-080		C-DIODE,MC2836
	87-A40-270-080		C-DIODE,MC2838
	87-A40-749-080		ZENER,UZ5.6BSB
	87-A40-739-080		ZENER,UZ2.7BSA
	87-017-149-080		ZENER,HZS6A2L
	87-A40-760-080		ZENER,UZ9.1BSA
MAIN C.B			
C9	87-010-759-080		C-CAP,U, 0.1-25F
C10	87-010-759-080		C-CAP,U, 0.1-25F
C11	87-010-759-080		C-CAP,U, 0.1-25F
C12	87-010-759-080		C-CAP,U, 0.1-25F
C21	87-A12-442-000		CAP,E 3300-25 M 85 IV LELON<EZ>
C21	87-A12-440-000		CAP,E 3300-35 M 85 IV LELON<K>
C22	87-A10-831-080		CAP,E 1000-25 M SMG<EZ>
C22	87-A12-441-000		CAP,E 2200-35 M 85 IV LELON<K>
C25	87-010-407-080		CAP,E 33-50 SME<K>
C25	87-A12-094-080		CAP,E 47-50 SMG<EZ>
C26	87-010-407-080		CAP,E 33-50 SME<K>
C26	87-A12-094-080		CAP,E 47-50 SMG<EZ>
C31	87-010-759-080		C-CAP,U, 0.1-25F
C32	87-012-286-080		CAP, U 0.01-25
C34	87-010-260-080		CAP,E 47-25 SME<K>
C34	87-A12-071-080		CAP,E 47-25 SMG<EZ>
C35	87-A10-092-080		CAP,E 22-50 SMG<EZ>
C35	87-010-406-080		CAP,E 22-50 SME<K>
C36	87-010-112-080		CAP,E 100-16 SME<K>
C36	87-A10-918-080		CAP,E 100-16 SMG<EZ>
C50	87-010-247-080		CAP,E 100-50 SME<K>
C50	87-A12-095-080		CAP,E 100-50 SMG<EZ>
C51	87-010-247-080		CAP,E 100-50 SME<K>
C51	87-A12-095-080		CAP,E 100-50 SMG<EZ>
C60	87-010-403-080		CAP,E 3.3-50 SME<K>
C60	87-A12-089-080		CAP,E 3.3-50 SMG<EZ>
C61	87-010-260-080		CAP,E 47-25 SME<K>
C61	87-A12-071-080		CAP,E 47-25 SMG<EZ>
C74	87-010-759-080		C-CAP,U, 0.1-25F
C101	87-012-284-080		CAP, U 6800P-50
C102	87-012-284-080		CAP, U 6800P-50
C103	87-010-544-080		CAP,E 0.1-50 SME<K>
C103	87-A12-083-080		CAP,E 0.1-50 SMG<EZ>
C104	87-010-544-080		CAP,E 0.1-50 SME<K>
C104	87-A12-083-080		CAP,E 0.1-50 SMG<EZ>
C105	87-012-282-080		CAP, U 4700P-50
C106	87-012-282-080		CAP, U 4700P-50
C107	87-010-403-080		CAP,E 3.3-50 SME<K>
C107	87-A12-089-080		CAP,E 3.3-50 SMG<EZ>
C108	87-010-403-080		CAP,E 3.3-50 SME<K>
C108	87-A12-089-080		CAP,E 3.3-50 SMG<EZ>
C109	87-012-195-080		C-CAP,U 100P-50CH
C110	87-012-195-080		C-CAP,U 100P-50CH
C111	87-010-406-080		CAP,E 22-50 SME<K>
C111	87-A10-092-080		CAP,E 22-50 SMG<EZ>
C112	87-010-406-080		CAP,E 22-50 SME<K>
C112	87-A10-092-080		CAP,E 22-50 SMG<EZ>
C113	87-012-199-080		C-CAP,U 220P-50CH<EZ>
C113	87-A10-946-080		C-CAP,U 220P-100<K>
C114	87-A10-946-080		C-CAP,U 220P-100<K>
C114	87-012-199-080		C-CAP,U 220P-50CH<EZ>
C117	87-012-286-080		CAP, U 0.01-25
C118	87-012-286-080		CAP, U 0.01-25
C119	87-012-286-080		CAP, U 0.01-25
C120	87-012-286-080		CAP, U 0.01-25
C123	87-012-280-080		CAP, U 3300-50 KB
C124	87-012-280-080		CAP, U 3300-50 KB
C125	87-010-759-080		C-CAP,U, 0.1-25F
C126	87-010-759-080		C-CAP,U, 0.1-25F
C127	87-010-759-080		C-CAP,U, 0.1-25F
C128	87-010-759-080		C-CAP,U, 0.1-25F
C129	87-012-276-080		CAP, CHIP SS 1500 PBK
C130	87-012-276-080		CAP, CHIP SS 1500 PBK
C140	86-ZA1-616-080		C-CAP,U 0.01-50 K B (MUR)
C401	87-010-759-080		C-CAP,U, 0.1-25F
C402	87-010-759-080		C-CAP,U, 0.1-25F
C403	87-012-193-080		C-CAP,U 82P-50 CH
C404	87-012-193-080		C-CAP,U 82P-50 CH
C405	87-012-286-080		CAP, U 0.01-25
C406	87-012-286-080		CAP, U 0.01-25
C407	87-012-286-080		CAP, U 0.01-25
C408	87-012-286-080		CAP, U 0.01-25
C409	87-012-278-080		C-CAP,U 2200P-50 B
C410	87-012-278-080		C-CAP,U 2200P-50 B
C411	87-010-405-080		CAP,E 10-50 SME<K>
C411	87-A12-091-080		CAP,E 10-50 SMG<EZ>
C412	87-010-405-080		CAP,E 10-50 SME<K>
C412	87-A12-091-080		CAP,E 10-50 SMG<EZ>
C413	87-012-286-080		CAP, U 0.01-25
C421	87-012-275-080		C-CAP,U 1200P-50 B
C422	87-012-275-080		C-CAP,U 1200P-50 B
C423	87-012-274-080		CHIP CAP,U 1000P-50B
C424	87-012-274-080		CHIP CAP,U 1000P-50B
C425	87-010-263-080		CAP,E 100-10 SME<K>
C425	87-A12-062-080		CAP,E 100-10 SMG<EZ>
C426	87-A12-062-080		CAP,E 100-10 SMG<EZ>
C426	87-010-263-080		CAP,E 100-10 SME<K>
C427	87-012-188-080		C-CAP,U 47P-50 CH
C428	87-012-188-080		C-CAP,U 47P-50 CH
C429	87-010-956-080		CHIP-CAP,S 0.068-25B
C430	87-010-956-080		CHIP-CAP,S 0.068-25B
C431	87-012-284-080		CAP, U 6800P-50

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C432	87-012-284-080		CAP, U 6800P-50
C433	87-010-546-080		CAP,E 0.33-50 SME<K>
C433	87-A12-085-080		CAP,E 0.33-50 SMG<EZ>
C434	87-010-546-080		CAP,E 0.33-50 SME<K>
C434	87-A12-085-080		CAP,E 0.33-50 SMG<EZ>
C435	87-010-263-080		CAP,E 100-10 SME<K>
C435	87-A12-062-080		CAP,E 100-10 SMG<EZ>
C436	87-010-759-080		C-CAP,U, 0.1-25F
C437	87-010-759-080		C-CAP,U, 0.1-25F
C439	87-010-759-080		C-CAP,U, 0.1-25F
C440	87-010-759-080		C-CAP,U, 0.1-25F
C441	87-010-759-080		C-CAP,U, 0.1-25F
C442	87-010-759-080		C-CAP,U, 0.1-25F
C443	87-010-759-080		C-CAP,U, 0.1-25F
C444	87-012-197-080		C-CAP,U 150P-50 CH
C445	87-A10-039-080		C-CAP,U 470P-50 J CH
C452	87-010-382-080		CAP,E 22-25 SME<K>
C452	87-A12-069-080		CAP,E 22-25 SMG<EZ>
C453	87-012-279-080		C-CAP,U 2700P-50 B
C454	87-012-279-080		C-CAP,U 2700P-50 B
C455	87-012-279-080		C-CAP,U 2700P-50 B
C456	87-012-286-080		CAP, U 0.01-25
C457	87-A12-361-080		CAP,M 5600P-100 J CP
C458	87-012-274-080		CHIP CAP,U 1000P-50B
C459	87-010-175-080		CAP 560P
C460	87-010-759-080		C-CAP,U, 0.1-25F
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C470	87-A10-039-080		C-CAP,U 470P-50 J CH
C605	87-012-275-080		C-CAP,U 1200P-50 B
C606	87-012-275-080		C-CAP,U 1200P-50 B
C609	87-010-785-080		C-CAP,U 0.015-25BK
C610	87-010-785-080		C-CAP,U 0.015-25BK
C611	87-010-545-080		CAP,E 0.22-50 SME<K>
C611	87-A12-084-080		CAP,E 0.22-50 SMG<EZ>
C612	87-010-545-080		CAP,E 0.22-50 SME<K>
C612	87-A12-084-080		CAP,E 0.22-50 SMG<EZ>
C613	87-010-545-080		CAP,E 0.22-50 SME<K>
C613	87-A12-084-080		CAP,E 0.22-50 SMG<EZ>
C614	87-010-545-080		CAP,E 0.22-50 SME<K>
C614	87-A12-084-080		CAP,E 0.22-50 SMG<EZ>
C615	87-012-172-080		CAPACITOR CHIP U 10P CH
C616	87-010-248-080		CAP,E 220-10 SME<K>
C616	87-A12-063-080		CAP,E 220-10 SMG<EZ>
C617	87-010-221-080		CAP,E 470-10 SME<K>
C617	87-016-459-040		CAP,E 470-10 SMG<EZ>
C618	87-010-405-080		CAP,E 10-50 SME<K>
C618	87-A12-091-080		CAP,E 10-50 SMG<EZ>
C630	87-A10-260-080		C-CAP,U 0.1-16 K B
C669	87-012-195-080		C-CAP,U 100P-50CH
C670	87-012-195-080		C-CAP,U 100P-50CH
C771	87-010-263-080		CAP,E 100-10 SME<K>
C771	87-A12-062-080		CAP,E 100-10 SMG<EZ>
C772	87-012-286-080		CAP, U 0.01-25
C779	87-010-971-080		C-CAP,S 4700P-50 B J
C780	87-010-971-080		C-CAP,S 4700P-50 B J
C782	87-012-286-080		CAP, U 0.01-25
C783	87-012-286-080		CAP, U 0.01-25
C784	87-012-286-080		CAP, U 0.01-25
C785	87-012-286-080		CAP, U 0.01-25
C786	87-012-286-080		CAP, U 0.01-25
C788	87-012-167-080		C-CAP,U 5P-50 CH
C789	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C790	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C791	87-010-759-080		C-CAP,U, 0.1-25F
C792	87-012-286-080		CAP, U 0.01-25
C793	87-010-404-080		CAP,E 4.7-50 SME<K>
C793	87-A12-090-080		CAP,E 4.7-50 SMG<EZ>
C794	87-A10-039-080		C-CAP,U 470P-50 J CH
C795	87-012-286-080		CAP, U 0.01-25
C796	87-012-286-080		CAP, U 0.01-25
C797	87-010-405-080		CAP,E 10-50 SME<K>
C797	87-A12-091-080		CAP,E 10-50 SMG<EZ>
C798	87-012-286-080		CAP, U 0.01-25
C799	87-010-407-080		CAP,E 33-50 SME<K>
C799	87-A12-093-080		CAP,E 33-50 SMG<EZ>
C800	87-010-829-080		CAP, U 0.047-16
C801	87-010-403-080		CAP,E 3.3-50 SME<K>
C801	87-A12-089-080		CAP,E 3.3-50 SMG<EZ>
C802	87-010-829-080		CAP, U 0.047-16
C803	87-010-787-080		CAP, U 0.022-25
C804	87-010-263-080		CAP,E 100-10 SME<K>
C804	87-A12-062-080		CAP,E 100-10 SMG<EZ>
C807	87-010-400-080		CAP,E 0.47-50 SME<K>
C807	87-A12-086-080		CAP,E 0.47-50 SMG<EZ>
C808	87-A12-087-080		CAP,E 1-50 SMG<EZ>
C808	87-010-401-080		CAP,E 1-50 M 11 L SME<K>
C809	87-A12-087-080		CAP,E 1-50 SMG<EZ>
C809	87-010-401-080		CAP,E 1-50 M 11 L SME<K>
C810	87-010-759-080		C-CAP,U, 0.1-25F
C814	87-012-286-080		CAP, U 0.01-25
C815	87-A12-086-080		CAP,E 0.47-50 SMG<EZ>
C815	87-010-400-080		CAP,E 0.47-50 M 11 L SME<K>
C816	87-A12-086-080		CAP,E 0.47-50 SMG<EZ>
C816	87-010-400-080		CAP,E 0.47-50 M 11 L SME<K>
C818	87-012-276-080		CAP, CHIP SS 1500 PBK
C821	87-010-405-080		CAP,E 10-50 SME<K>
C821	87-A12-091-080		CAP,E 10-50 SMG<EZ>
C823	87-012-349-080		C-CAP,S 1000P-50 CH
C824	87-010-404-080		CAP,E 4.7-50 SME<K>
C824	87-A12-090-080		CAP,E 4.7-50 SMG<EZ>
C825	87-010-596-080		CAP, S 0.047-16
C831	87-010-406-080		CAP,E 22-50 SME<K>
C831	87-A10-092-080		CAP,E 22-50 SMG<EZ>
C836	87-012-286-080		CAP, U 0.01-25
C837	87-012-286-080		CAP, U 0.01-25
C842	87-012-286-080		CAP, U 0.01-25
C844	87-012-286-080		CAP, U 0.01-25
C850	87-010-260-080		CAP,E 47-25 SME<K>
C850	87-A12-071-080		CAP,E 47-25 SMG<EZ>
C851	87-012-286-080		CAP, U 0.01-25
C852	87-012-286-080		CAP, U 0.01-25
C853	87-012-286-080		CAP, U 0.01-25
C858	87-010-759-080		C-CAP,U, 0.1-25F
C859	87-010-759-080		C-CAP,U, 0.1-25F
C860	87-012-286-080		CAP, U 0.01-25
C942	87-012-167-080		C-CAP,U 5P-50 CH
C947	87-012-286-080		CAP, U 0.01-25
C948	87-A10-039-080		C-CAP,U 470P-50 J CH
C952	87-012-286-080		CAP, U 0.01-25
C957	87-012-174-080		CAP CHIP CERA SS 12P CHJ
C958	87-012-286-080		CAP, U 0.01-25
C962	87-010-401-080		CAP,E 1-50 SME<K>
C962	87-A12-087-080		CAP,E 1-50 SMG<EZ>
C971	87-010-381-080		CAP,E 330-16 SME<K>
C971	87-A12-067-080		CAP,E 330-16 SMG<EZ>
C972	87-010-404-080		CAP,E 4.7-50 SME<K>
C972	87-A12-090-080		CAP,E 4.7-50 SMG<EZ>
C973	87-012-286-080		CAP, U 0.01-25
C974	87-012-286-080		CAP, U 0.01-25
C979	87-012-195-080		C-CAP,U 100P-50CH
C981	87-010-260-080		CAP,E 47-25 SME<K>
C981	87-A12-071-080		CAP,E 47-25 SMG<EZ>
C982	87-010-759-080		C-CAP,U, 0.1-25F
C983	87-012-286-080		CAP, U 0.01-25
C984	87-012-286-080		CAP, U 0.01-25
C985	87-012-195-080		C-CAP,U 100P-50CH
C987	87-012-286-080		CAP, U 0.01-25
C989	87-012-286-080		CAP, U 0.01-25
C990	87-012-195-080		C-CAP,U 100P-50CH

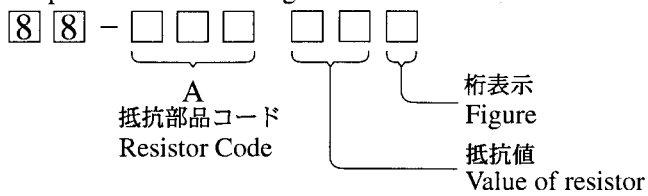
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C991	87-012-176-080		CAP 15P
C992	87-012-176-080		CAP 15P
C993	87-012-274-080		CHIP CAP,U 1000P-50B
C994	87-012-195-080		C-CAP,U 100P-50CH
C995	87-012-274-080		CHIP CAP,U 1000P-50B
C996	87-012-195-080		C-CAP,U 100P-50CH
C997	87-010-759-080		C-CAP,U, 0.1-25F
C998	87-010-260-080		CAP,E 47-25 SME<K>
C998	87-A12-071-080		CAP,E 47-25 SMG<EZ>
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
CF831	87-008-423-010		CERAMIC FILTER, SFE10.7
CF832	82-785-747-010		CF MS2 GHY R
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN401	87-A60-620-010		CONN,3P V 2MM JMT
CN602	87-099-194-010		CONN,6P 6216V
CNA351	8B-NFC-634-010		CONN ASSY,8P RPB
CNA401	8B-NFC-633-010		CONN ASSY,3P (PH)
⚠ F101	87-A91-207-010		FUSE 315MA 250VT 50T<EZ>
⚠ FC101	87-033-213-080		FUSE CLAMP,PFC5000<EZ>
⚠ FC102	87-033-213-080		FUSE CLAMP,PFC5000<EZ>
FC602	88-906-251-110		FF-CABLE,6P 1.25
FFE831	A8-6ZA-199-170		6ZA-1 FEENC<K>
FFE831	A8-6ZA-19C-170		6ZA-1 YFEENC<EZ>
J101	87-A61-480-010		JACK,DIA6.3 BLK ST W/SW MSC16A
J103	87-A61-452-010		TERMINAL,SP 4P(MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312V05
JR621	87-010-598-080		C-CAP,S 0.068-16
JR622	87-010-598-080		C-CAP,S 0.068-16
⚠ JW001	87-A91-941-080		PROTECTOR,3A 20P 60V<K>
⚠ JW002	87-A91-941-080		PROTECTOR,3A 20P 60V<K>
JW959	87-A11-155-080		CAP,TC U 0.01-16 Z F
L101	87-A50-611-010		COIL,1UH K(CS)
L102	87-A50-611-010		COIL,1UH K(CS)
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-608-010		COIL,FM DET-N(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UH(CECS)
L832	87-005-847-080		COIL,2.2UH(CECS)
L941	87-A50-020-010		COIL,ANT LW(COI)
L942	87-A50-019-010		COIL,OSC LW(COI)
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)
⚠ PT101	8B-NFC-608-010		PT,BNF-C EZ<EZ>
⚠ PT101	8B-NFC-610-010		PT,BNF-C K<K>
R790	87-012-286-080		CAP, U 0.01-25
RY101	87-A91-339-010		RELAY,AC DC12V G5PA-2
⚠ T101	87-A60-317-010		TERMINAL, 1P MSC
⚠ T102	87-A60-317-010		TERMINAL, 1P MSC
TC942	87-A91-774-080		TRIMMER,PLY 30P 6.8X5.4 CDYL
X992	87-A70-306-010		VIB,XTAL 4.500MHZ CSA-309ST

FRONT C.B

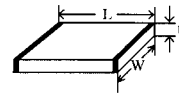
C390	87-010-384-040		CAP,E 100-25 SME
C500	87-010-759-080		C-CAP,U, 0.1-25F
C505	87-010-829-080		CAP, U 0.047-16
C506	87-010-263-040		CAP,E 100-10
C507	87-010-246-040		CAP,E 47-35 SME<K>
C507	87-A12-078-040		CAP,E 47-35 SMG<EZ>
C508	87-010-192-080		C-CAP,S 0.022-50 F
C509	87-010-404-040		CAP,E 4.7-50 SME
C510	87-010-404-040		CAP,E 4.7-50 SME
C516	87-010-831-080		C-CAP,U,0.1-16F
C517	87-010-831-080		C-CAP,U,0.1-16F
C518	87-012-274-080		CHIP CAP,U 1000P-50B
C519	87-012-336-080		CAP, CHIP SS 3300 SL
C520	87-012-282-080		CAP, U 4700P-50
C521	87-010-829-080		CAP, U 0.047-16
C522	87-016-459-040		CAP,E 470-10 SMG
C523	87-010-248-040		CAP,E 220-10 SME
C524	87-010-787-080		CAP, U 0.022-25
C525	87-010-071-040		CAP,E 1-50 M 5L SRE
C526	87-010-405-040		CAP,E 10-50
C527	87-A10-039-080		C-CAP,U 470P-50 J CH
C528	87-010-263-040		CAP,E 100-10 M 11L SME
C530	87-012-195-080		C-CAP,U 100P-50CH
C531	87-012-195-080		C-CAP,U 100P-50CH
C532	87-012-195-080		C-CAP,U 100P-50CH
C533	87-012-195-080		C-CAP,U 100P-50CH
C534	87-012-195-080		C-CAP,U 100P-50CH
C535	87-012-195-080		C-CAP,U 100P-50CH
C536	87-012-195-080		C-CAP,U 100P-50CH
C537	87-012-195-080		C-CAP,U 100P-50CH
C538	87-012-195-080		C-CAP,U 100P-50CH
C539	87-012-195-080		C-CAP,U 100P-50CH
C540	87-010-759-080		C-CAP,U, 0.1-25F
C546	87-010-759-080		C-CAP,U, 0.1-25F
C555	87-012-172-080		CAP 10P-50
C556	87-012-198-080		CAP 180P
C557	87-010-831-080		C-CAP,U,0.1-16F
C558	87-010-831-080		C-CAP,U,0.1-16F
C560	87-012-286-080		CAP, U 0.01-25
CN501	87-A60-673-010		CONN,9P H 2MM JMT
CN502	87-099-196-010		CONN,8P 6216 V
FC502	88-908-201-110		FF-CABLE,8P 1.25
FL501	8B-NFC-601-010		FL,NHA-10SS18T
L501	87-A50-655-010		COIL,CLK 4.19MHZ (TOKO)7KLY
S301	87-A91-024-180		SW,TACT KSH0611BT
S302	87-A91-024-180		SW,TACT KSH0611BT
S303	87-A91-024-180		SW,TACT KSH0611BT
S304	87-A91-024-180		SW,TACT KSH0611BT
S305	87-A91-024-180		SW,TACT KSH0611BT
S306	87-A91-024-180		SW,TACT KSH0611BT
S307	87-A91-024-180		SW,TACT KSH0611BT
S308	87-A91-024-180		SW,TACT KSH0611BT
S309	87-A91-024-180		SW,TACT KSH0611BT
S310	87-A91-024-180		SW,TACT KSH0611BT
S311	87-A91-024-180		SW,TACT KSH0611BT
S312	87-A91-024-180		SW,TACT KSH0611BT
S313	87-A91-024-180		SW,TACT KSH0611BT
S314	87-A91-024-180		SW,TACT KSH0611BT
S315	87-A91-024-180		SW,TACT KSH0611BT
S316	87-A91-024-180		SW,TACT KSH0611BT
SFR391	87-024-431-080		SFR,3.3K RH063EC

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

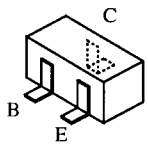
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



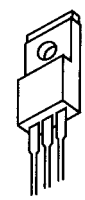
2SA1235F
2SC2714
2SC3052F
CSD1306E
KRA102S
KRA107S
KRC104S

E C B

2SA1980G
2SA1981Y
2SC5343G
STC250

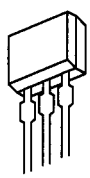
E C B

CSC4115BC
KTC3198GR



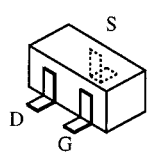
B C E

2SD1933
2SB1342
KTA1046Y

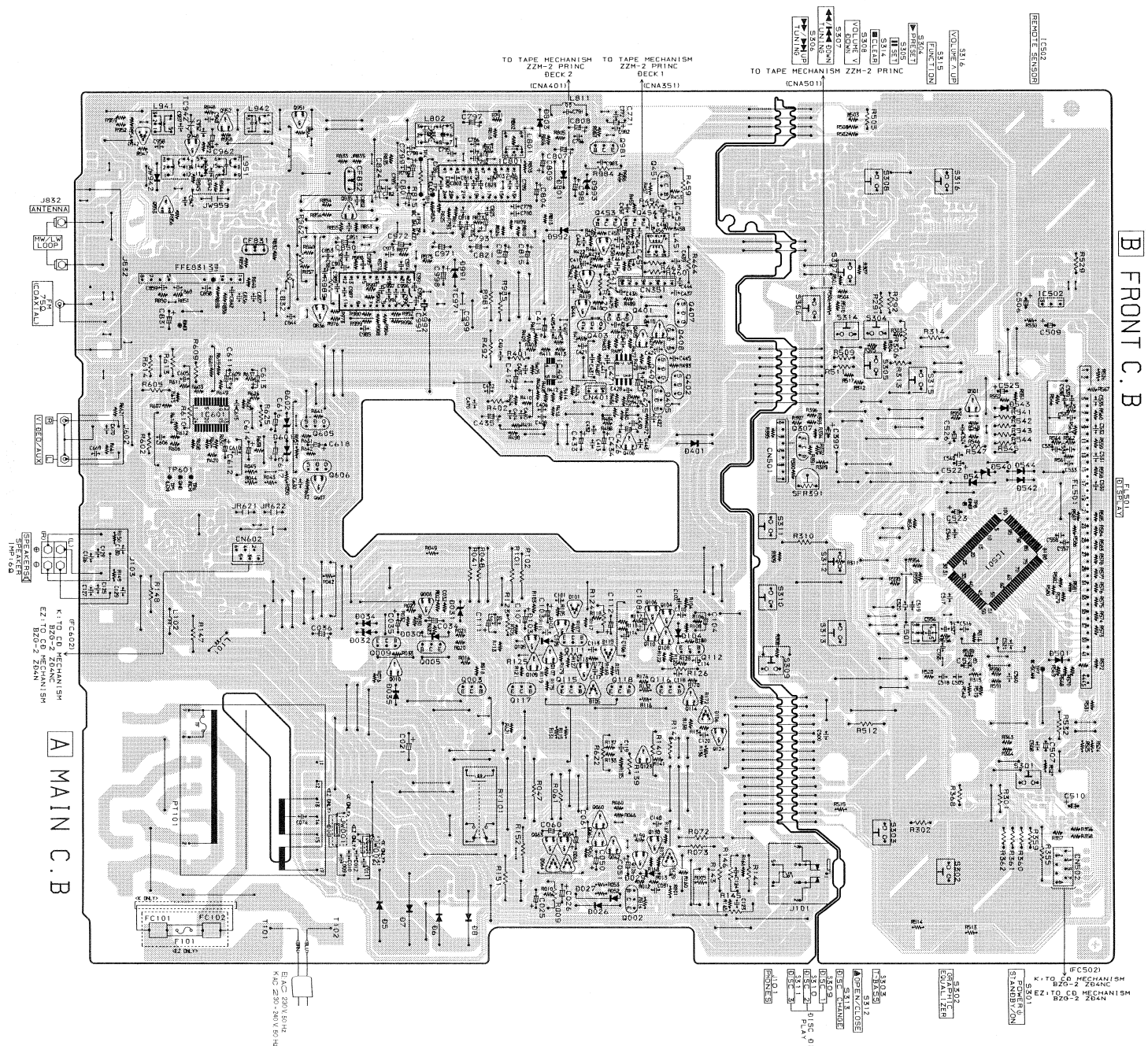


S D G

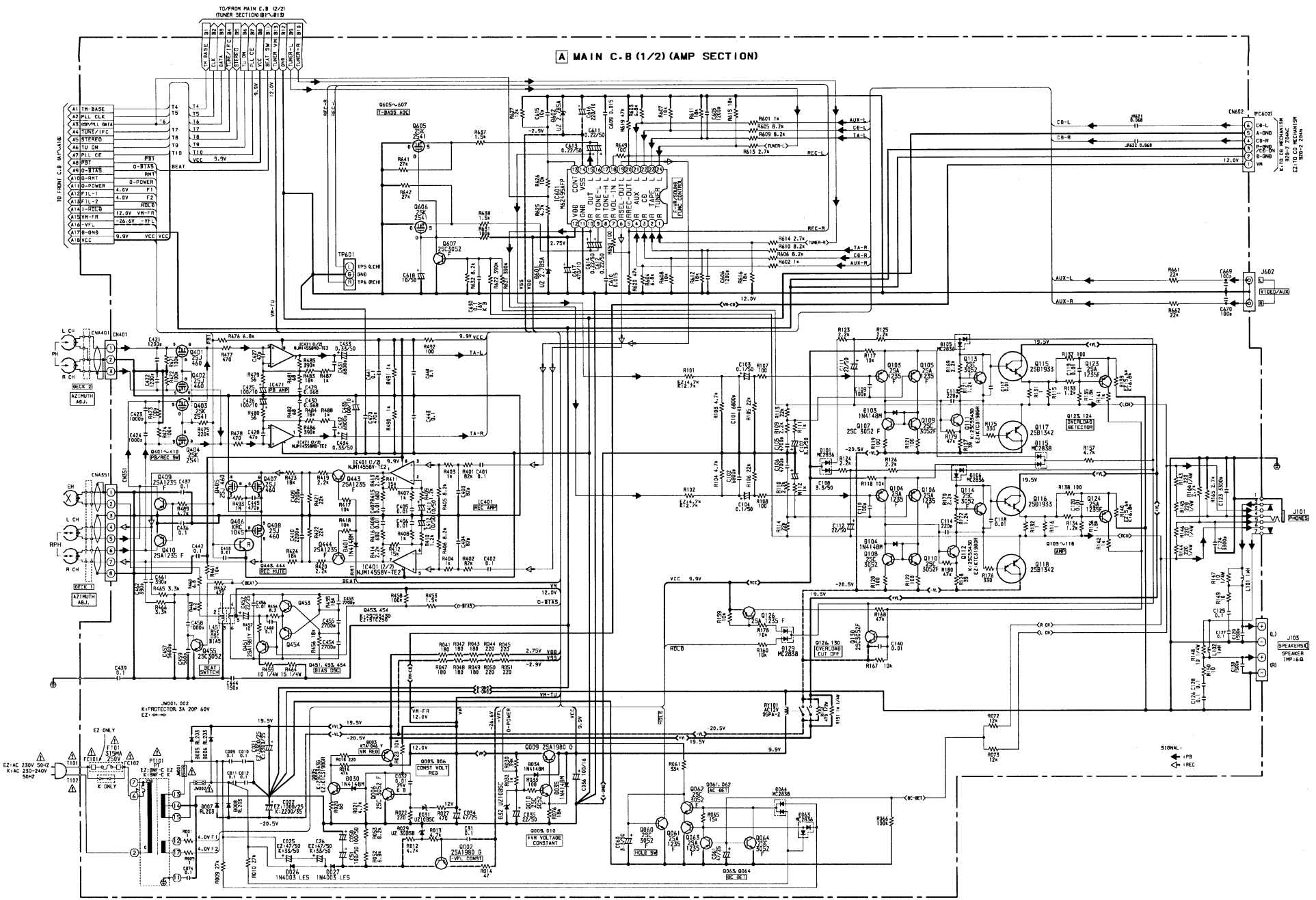
2SK2541
2SJ460

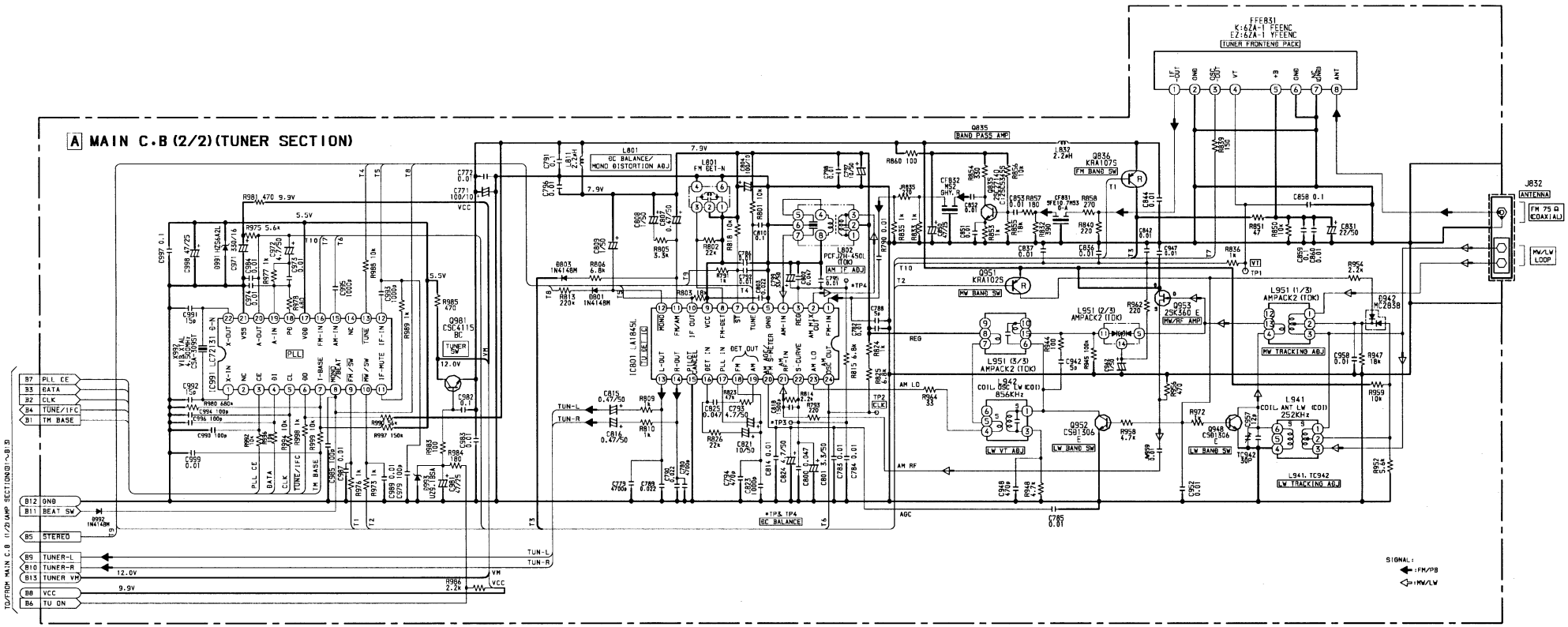


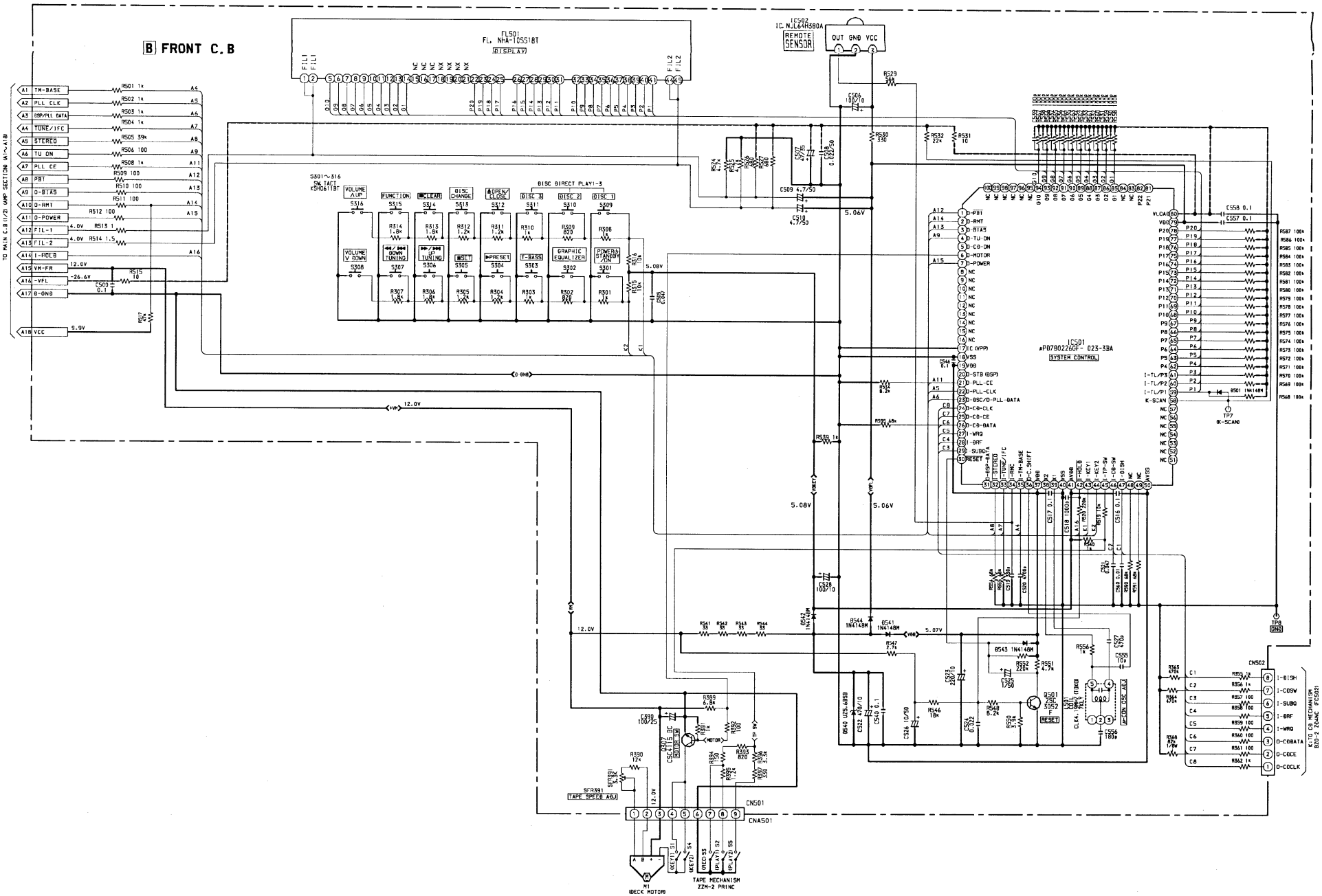
2SK360E

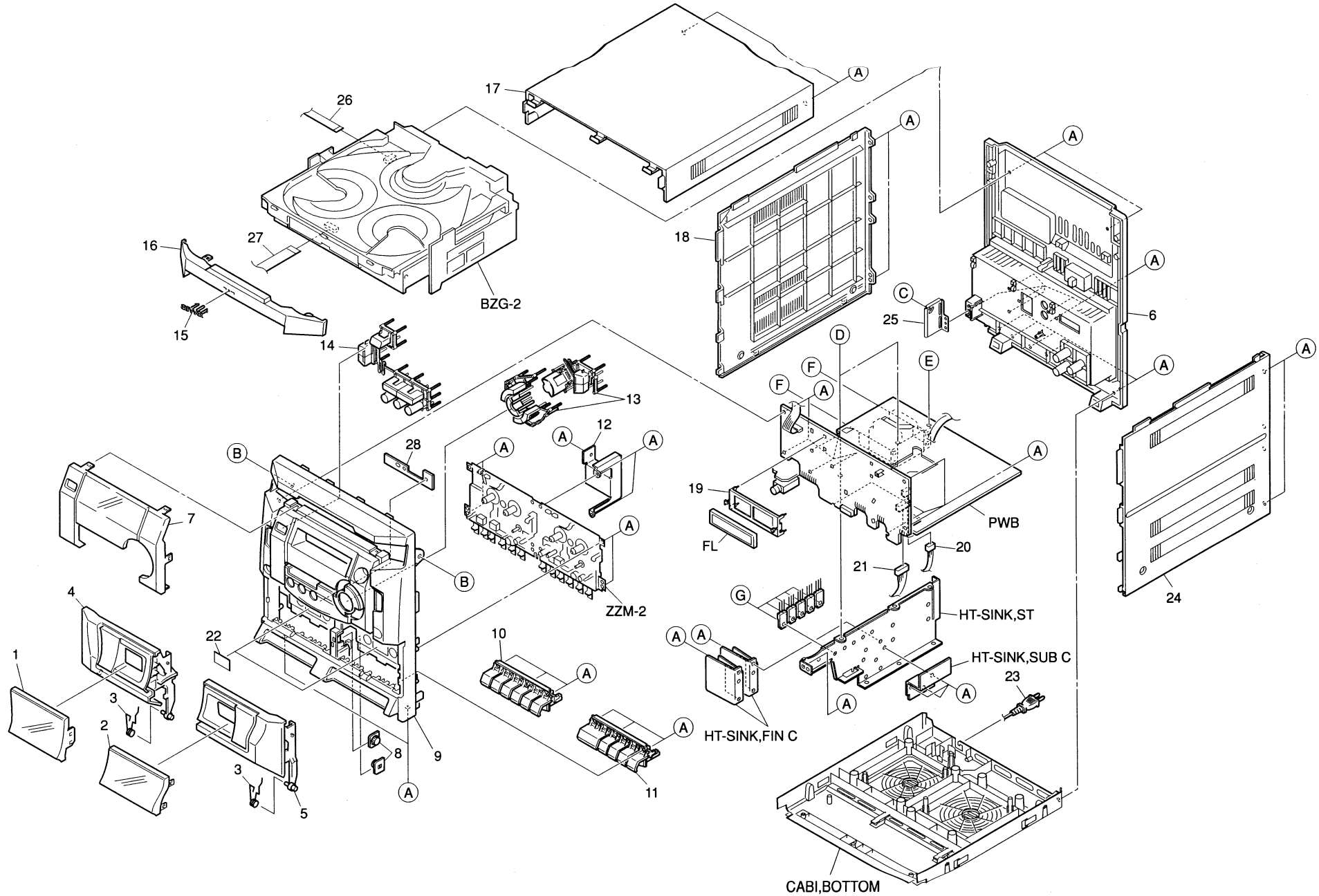

A MAIN C.B
B FRONT C.B
TO TAPE MECHANISM ZZM-2 PRINC DECK 2 (CNA401)
TO TAPE MECHANISM ZZM-2 PRINC DECK 1 (CNA351)
TO TAPE MECHANISM ZZM-2 PRINC (CNA501)
J832 ANTENNA
MW/LW LOOP
FM (COAXIAL)
VIDEO/AUX
SPEAKERS SPEAKER IMP-16Ω
(FC602) K: TO CD MECHANISM BZG-2 ZD4NC EZ: TO CD MECHANISM BZG-2 ZD4N
(FC502) K: TO CD MECHANISM BZG-2 ZD4NC EZ: TO CD MECHANISM BZG-2 ZD4N
AC 220-240V 50/60Hz
AC 220-240V 50Hz
FC101
FC102
F101
T101
T102
TUNING UP
TUNING DOWN
VOLUME V
CLEAR
PRESET
FUNCTION
VOLUME ∧ UP
REMOTE SENSOR
FL501 DISPLAY
PHONES
DISC SKIP/CHANGE
OPEN/CLOSE
T-BASS
SPATIAL EQUALIZER
POWER ON/STANDBY
DISC 1
DISC 2
DISC 3
DISC DIRECT PLAY 1-3

SCHEMATIC DIAGRAM – 1 (MAIN 1 / 2 : AMP SECTION)




A MAIN C.B (2/2) (TUNER SECTION)
FFE831
TUNER FRONTEND PACK
J832
ANTENNA
FM 75Ω (COAXIAL)
MW/LW LOOP
Q835
BAND PASS AMP
Q836
KRA107S
FM BAND SW
Q951
KRA102S
MW BAND SW
Q952
2SC1306
LW BAND SW
Q953
2SK360 E
MW/HF AMP
Q948
2SC1306
Q981
CSC4115
IC
TUNER SW
IC991 LC72131 B-N
PLL
IC801 LA1845L
IF
L801
FM DET-N
MONO DISTORTION ADJ
L802
PCF-2450L (TOK)
AM IF ADJ
L951 (1/3)
AMPACK2 (TOK)
L951 (2/3)
AMPACK2 (TOK)
L951 (3/3)
AMPACK2 (TOK)
COIL OSC LW (COI)
856KHz
L941
COIL ANT LW (COI)
252KHz
MW TRACKING ADJ
LW TRACKING ADJ
LW VT ADJ
RC BALANCE
TUNER-L
TUNER-R
STEREO
PLL CE
DATA
CLK
TUNE/IFC
TM BASE
BEAT SW
GND
VCC
TU ON
12.0V
9.9V
5.5V
7.9V
TUN-L
TUN-R
AM RF
AM LO
AGC
REG
SIGNAL:
:FM/PB
:MW/LW


B FRONT C.B
TO MAIN C.B1/2) (AMP SECTION) (A1~A18)
A1 TM-BASE
A2 PLL CLK
A3 DSP/PLL DATA
A4 TUNE/IFC
A5 STEREO
A6 TU ON
A7 PLL CE
A8 PBT
A9 D-BIAS
A10 D-RMT
A11 D-POWER
A12 FIL-1
A13 FIL-2
A14 I-RCLB
A15 VM-FR
A16 -VFL
A17 D-GND
A18 VCC
9.9V
FL501 FL NHA-1055187 DISPLAY
IC502 IC NJL64H580A REMOTE SENSOR
OUT GND VCC
S501~516 SW TACT KSHD611BT
VOLUME ∧UP
FUNCTION
CLEAR
DISC CHANGE
OPEN/CLOSE
DISC 3
DISC 2
DISC 1
VOLUME ∨ DOWN
DOWN TUNING
UP TUNING
SET
PRESET
T-BASS
GRAPHIC EQUALIZER
POWER/STANDBY /ON
DISC DIRECT PLAY 1-3
IC501 μPD780226GF-023-3BA SYSTEM CONTROL
5.08V
5.06V
12.0V
5.07V
CN501
CNA501
SF501 TAPE SPEED ADJ
M1 (DECK MOTOR)
TAPE MECHANISM ZZM-2 PRINC
CN502
K-SCAN
RESET
I-DISH
I-CDSW
I-SUBQ
I-BRF
I-WRQ
O-CDDATA
O-CDCE
O-CDCLK
K-TD CD MECHANISM BZO-2 324MC (FC502)
EZ-TD CD MECHANISM BZO-2 284M VFC502


17
26
27
16
15
BZG-2
18
14
13
28
12
7
4
1
22
10
3
2
8
9
5
11
ZZM-2
19
FL
PWB
20
21
HT-SINK,ST
HT-SINK,SUB C
HT-SINK,FIN C
23
25
6
24
CABI,BOTTOM

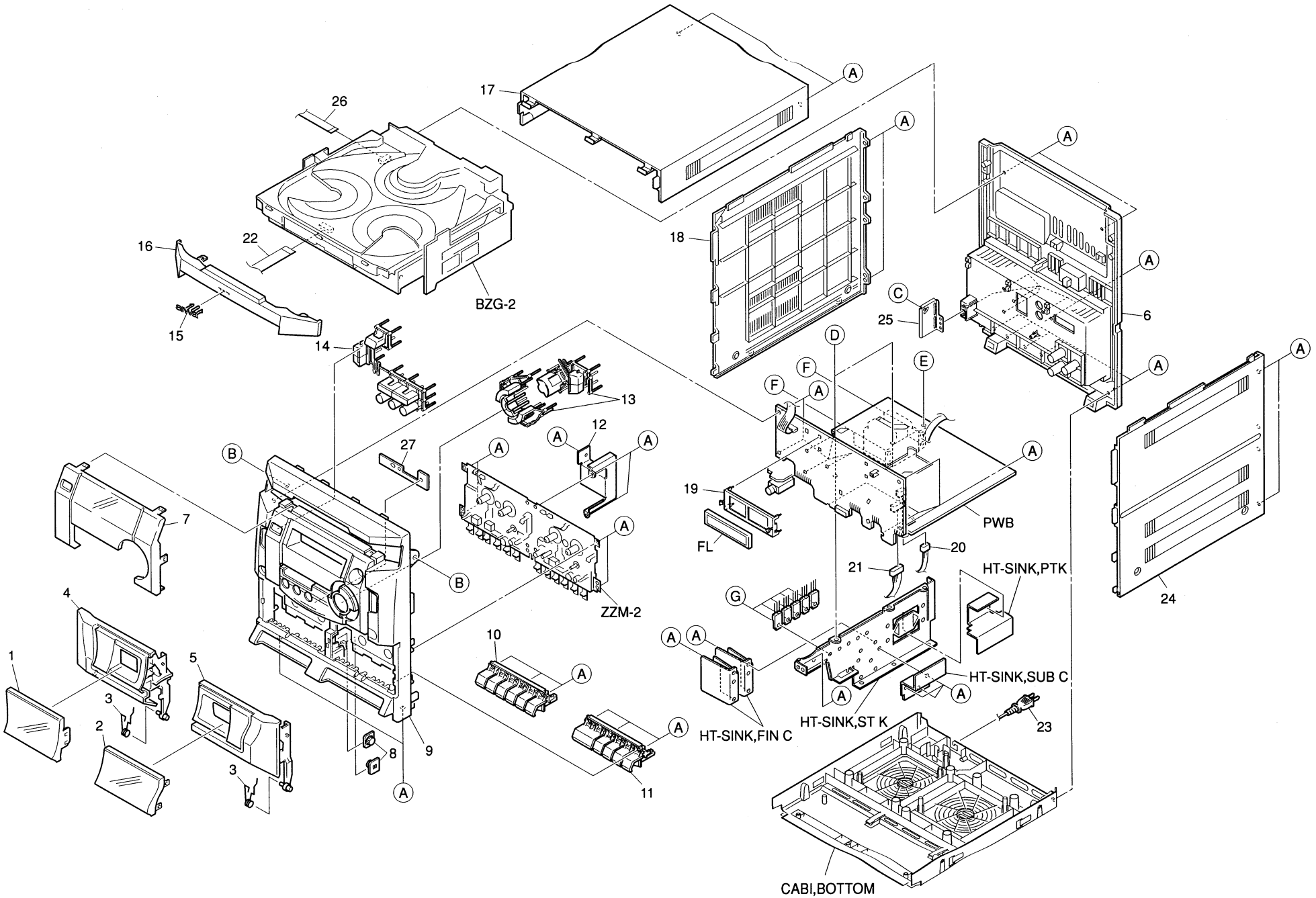
MECHANICAL PARTS LIST 1 / 1 <EZ>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	B-NFC-048-010		WINDOW,CASS 1 BLK
2	B-NFC-049-010		WINDOW,CASS 2 BLK
3	2-NF7-218-010		SPR-T,CASS
4	B-NFC-043-010		BOX,CASS 1 BLK
5	B-NFC-044-010		BOX,CASS 2 BLK
6	B-NFC-086-210		CABI,REAR EZB
7	B-NFC-047-010		WINDOW,DISP EZ SZ107
8	A-NFA-231-010		OIL-DMPR,70
9	B-NFC-041-010		CABI,FR EZ BLK
10	B-NFC-050-110		KEY,CASS 1 BLK
11	B-NFC-051-110		KEY,CASS 2 BLK
12	A-NEC-206-010		HLDR,DECK
13	B-NFC-053-010		KEY,PLAY BLK
14	B-NFC-052-010		KEY,POWER BLK
15	7-CE3-023-010		BADGE,AIWA 30N SILV
16	B-NFC-042-010		PANEL,TRAY BLK
17	B-NFA-093-010		PANEL,TOP BLK
18	B-NFC-045-010		PANEL,LEFT BLK
19	A-NFA-208-010		GUIDE,FL 100-25 ANFA
20	B-NFC-633-010		CONN ASSY,3P (PH)
21	B-NFC-634-010		CONN ASSY,8P RPB
22	1-532-080-010		LABEL, CASS. COMPT
⚠ 23	7-A80-092-010		AC CORD ASSY,E BLK SUN FAI
24	B-NFC-046-010		PANEL,RIGHT BLK
25	A-NEC-201-110		HLDR,PT
26	8-906-251-110		FF-CABLE,6P 1.25(RVS-FACE)
27	8-908-201-110		FF-CABLE,8P 1.25
28	B-NFC-643-010		PWB HLDR WIRE
A	7-067-703-010		TAPPING SCREW, BVT2+3-10
B	7-721-096-410		QT2+3-10 GLD
C	7-571-092-410		TAPPING SCREW, VIT+3-4
D	7-067-579-010		TAPPING SCREW, BVT2+3-8
E	7-NF4-224-010		S-SCREW,IT3B+3-8 CU
F	7-067-975-010		S-SCREW,IT+4-8
G	7-067-001-010		S-SCREW,BVWWST2+3-12 W/O SLOT

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green	HT	Transparent Gray

MECHANICAL EXPLODED VIEW 1 / 1 <K>



MECHANICAL PARTS LIST 1 / 1 <K>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NFC-008-010		WINDOW,CASS 1
2	8B-NFC-009-010		WINDOW,CASS 2
3	82-NF7-218-010		SPR-T,CASS
4	8B-NFC-003-110		BOX,CASS 1
5	8B-NFC-004-110		BOX,CASS 2
6	8B-NFC-016-210		CABI,REAR KSC
7	8B-NFC-034-010		WINDOW,DISP K 103
8	8A-NFA-231-010		OIL-DMPR,70
9	8B-NFC-001-010		CABI,FR U
10	8A-NED-010-210		KEY,CASS 1
11	8A-NED-011-110		KEY,CASS 2
12	8A-NEC-206-010		HLDR,DECK
13	8B-NFC-020-010		KEY,PLAY
14	8B-NFC-005-010		KEY,POWER
15	87-B00-002-010		BADGE,AIWA 30 ABS SIL
16	8B-NFC-002-010		PANEL,TRAY
17	8B-NFA-004-010		PANEL,TOP
18	8B-NFC-010-010		PANEL,LEFT
19	8A-NFA-208-010		GUIDE,FL 100-25 ANFA
20	8B-NFC-633-010		CONN ASSY,3P (PH)
21	8B-NFC-634-010		CONN ASSY,8P RPB
22	88-908-201-110		FF-CABLE,8P 1.25
⚠ 23	87-A80-157-010		AC CORD ASSY,E BLK CC
24	8B-NFC-040-010		PANEL,RIGHT K
25	8A-NEC-201-110		HLDR,PT
26	88-906-251-110		FF-CABLE,6P 1.25(RVS-FACE)
27	8B-NFC-643-010		PWB HLDR WIRE
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-721-096-410		QT2+3-10 GLD
C	87-571-092-410		TAPPING SCREW, VIT+3-4
D	87-067-579-010		TAPPING SCREW, BVT2+3-8
E	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
F	87-067-975-010		S-SCREW,IT+4-8
G	87-067-001-010		S-SCREW,BVWWST2+3-12 W/O SLOT

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green	HT	Transparent Gray

SPEAKER PARTS LIST (SX-NSZ102) <YSC>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NSN-001-110		GRILLE, FRAME ASSY
2	8A-NSM-008-010		CORD, SPKR
3	8A-NSM-606-010		SPKR, 100

SPEAKER PARTS LIST (SX-NSZ107) <YBC>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NSN-015-010		GRILLE, FRAME ASSY B
2	8A-NSM-008-010		CORD, SPKR
3	8A-NSM-606-010		SPKR, 100

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NFC-916-010		IB,EZ(9L)I<EZ>
1	8B-NFC-905-010		IB,K(E)S<K>
2	8Z-NF9-703-110		RC UNIT,RC-ZAS17<EZ>
2	8B-NFC-702-010		RC UNIT,RC-AAS11(VS)<K>
3	87-006-268-010		ANT,LOOP AM

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111

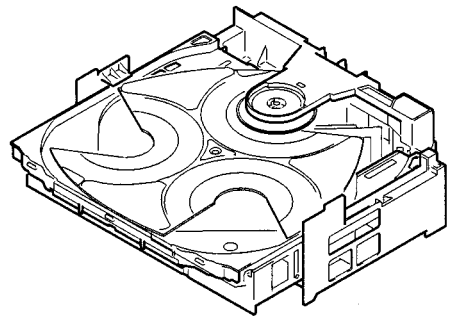
2000058 0251431

VIDE-V27643

aiwa SERVICE

BZG-2

English



SERVICE MANUAL

CD MECHANISM

BASIC CD MECHANISM :KSM2131FAM

TYPE	BASIC CD MECHANISM
ZD4NC	KSM-2131FAM
YZD4NC	KSM-2131FAM
ZD4N	KSM-2131FAM
YZD4NCC	KSM-2131FAM

aiwa

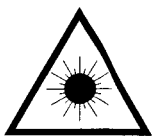
S/M Code No. 09-00C-353-2N2

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

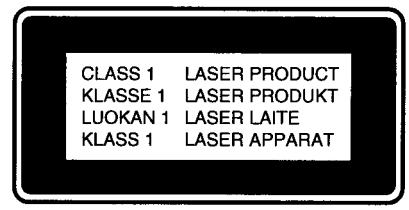
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

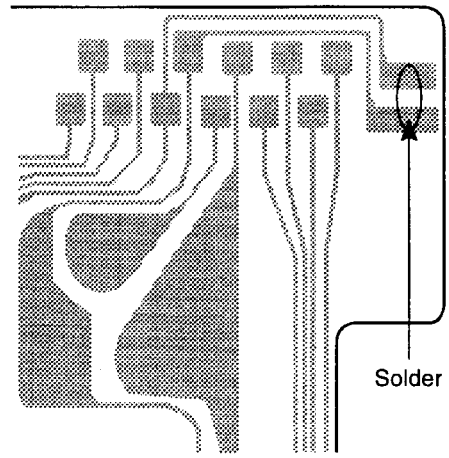


Precaution to replace Optical block (KSS-213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.

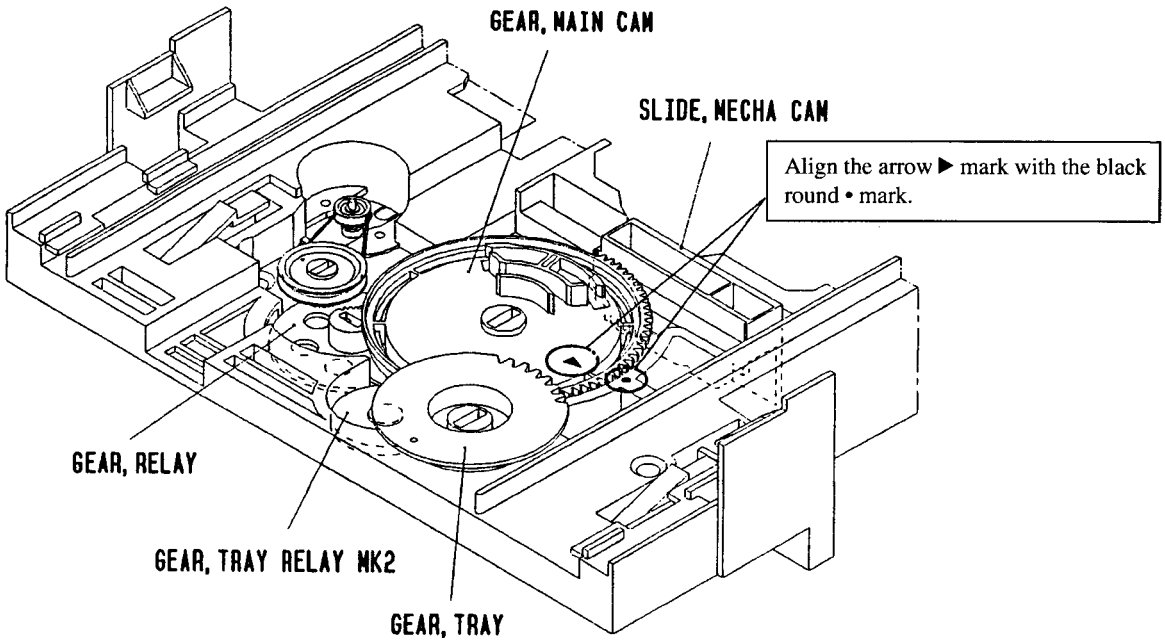
PICK-UP Assy PWB



How to Adjust the Rotating Phase of the Gear, Main Cam

1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.



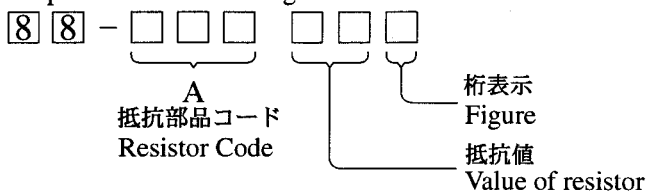
ELECTRICAL MAIN PARTS LIST-1/2

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A21-821-030		C-IC,LC78645E
	87-A21-414-010		IC,BA5927S
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	87-026-610-080		TR,KTC3198GR
	87-A30-073-080		C-TR,RT1N 141C
	87-A30-076-080		C-TR,2SC3052F
	87-A30-515-080		TR,2SA1979O/Y
DIODE			
	87-A40-743-080		ZENER,UZ4.3BSA
	87-A40-747-080		ZENER,UZ5.1BSB
	87-A40-270-080		C-DIODE,MC2838
	87-A40-753-080		ZENER,UZ6.8BSB
	87-020-465-080		DIODE,1SS133 (110MA)
MAIN C.B			
C1	87-010-759-080		C-CAP,U, 0.1-25F
C2	87-010-263-080		CAP, ELECT 100-10V
C3	87-A10-915-080		C-CAP,U 1000P-25 J CH
C4	87-010-759-080		C-CAP,U, 0.1-25F
C5	87-010-263-080		CAP, ELECT 100-10V
C6	87-010-405-080		CAP, ELECT 10-50V
C101	87-A10-504-080		C-CAP,U 0.047-16 K B
C102	87-010-759-080		C-CAP,U, 0.1-25F
C103	87-012-195-080		C-CAP,U 100P-50CH
C104	87-012-282-080		CAP, U 4700P-50
C105	87-010-759-080		C-CAP,U, 0.1-25F
C106	87-010-263-080		CAP, ELECT 100-10V
C107	87-010-263-040		CAP,E 100-10
C108	87-010-759-080		C-CAP,U, 0.1-25F
C109	87-010-263-040		CAP,E 100-10
C110	87-010-405-040		CAP,E 10-50
C111	87-010-401-080		CAP, ELECT 1-50V
C114	87-012-188-080		C-CAP,U 47P-50 CH
C115	87-010-759-080		C-CAP,U, 0.1-25F
C116	87-010-263-040		CAP,E 100-10
C117	87-010-263-080		CAP, ELECT 100-10V
C118	87-010-759-080		C-CAP,U, 0.1-25F
C121	87-010-263-080		CAP, ELECT 100-10V
C122	87-010-759-080		C-CAP,U, 0.1-25F
C123	87-012-169-080		C-CAP,U 7P-50 CH
C124	87-012-172-080		CAPACITOR CHIP U 10P CH
C126	87-010-403-080		CAP, ELECT 3.3-50V
C127	87-010-759-080		C-CAP,U, 0.1-25F
C128	87-A10-504-080		C-CAP,U 0.047-16 K B
C129	87-010-403-040		CAP,E 3.3-50 SME
C130	87-010-759-080		C-CAP,U, 0.1-25F
C131	87-010-759-080		C-CAP,U, 0.1-25F
C132	87-010-263-040		CAP,E 100-10
C133	87-010-405-080		CAP, ELECT 10-50V
C134	87-010-759-080		C-CAP,U, 0.1-25F
C135	87-010-260-080		CAP, ELECT 47-25V
C136	87-010-759-080		C-CAP,U, 0.1-25F
C137	87-A10-915-080		C-CAP,U 1000P-25 J CH
C138	87-010-759-080		C-CAP,U, 0.1-25F
C160	87-016-669-080		C-CAP,S 0.1-25 K B
C161	87-A10-484-080		C-CAP,S 1.0U-10 K B
C203	87-010-112-080		CAP, ELECT 100-16V
C204	87-010-759-080		C-CAP,U, 0.1-25F
C205	87-010-263-040		CAP,E 100-10
C208	87-010-759-080		C-CAP,U, 0.1-25F
C212	87-010-405-040		CAP,E 10-50
C213	87-010-759-080		C-CAP,U, 0.1-25F
C214	87-010-759-080		C-CAP,U, 0.1-25F
C301	87-010-382-080		CAP, ELECT 22-25V
C302	87-010-759-080		C-CAP,U, 0.1-25F
C303	87-010-260-080		CAP, ELECT 47-25V
C304	87-010-759-080		C-CAP,U, 0.1-25F
C305	87-A10-915-080		C-CAP,U 1000P-25 J CH
C401	87-012-195-080		C-CAP,U 100P-50CH
C402	87-012-195-080		C-CAP,U 100P-50CH
C403	87-012-195-080		C-CAP,U 100P-50CH
C404	87-012-195-080		C-CAP,U 100P-50CH
C405	87-012-195-080		C-CAP,U 100P-50CH
CN1	87-A60-429-010		CONN,16P H TOC-A
CN202	87-A60-130-010		CONN,5P V FE
CN301	87-A60-154-010		CONN,6P H FE
CN401	87-099-201-010		CONN,8P 6216 H
CNA203	84-ZG1-648-010		CONN ASSY,6P
L101	87-005-469-080		COIL 4.7UH FLR50
M201	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
R104	87-012-278-080		C-CAP,U 2200P-50 B
R106	87-012-274-080		CHIP CAP,U 1000P-50B
S401	87-036-109-010		PUSH SWITCH
S402	87-036-109-010		PUSH SWITCH
W1	8B-ZG2-601-010		FF-CABLE,16P 1.0 115MM
W2	8B-ZG2-602-010		FF-CABLE,5P 1.25 185MM
X101	87-A70-318-010		VIB,XTAL 33.8688MHZ CSA-309
T-T C.B			
C401	87-A11-148-080		CAP,TC U 0.1-50 Z F
CN401	87-A60-082-010		CONN,05P H 9604S-05F
M401	87-A91-982-010		MOT,M25E-4 2054
PS401	87-A90-156-010		SNSR,SG-240
MOTOR C.B			
M2	9X-262-513-210		SLED MOTOR
PIN3	91-564-722-110		CONNECTOR 6P
SW1	91-572-085-110		LEAF SW

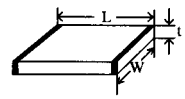
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

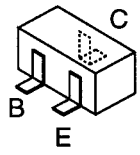
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



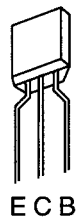
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION-1/1



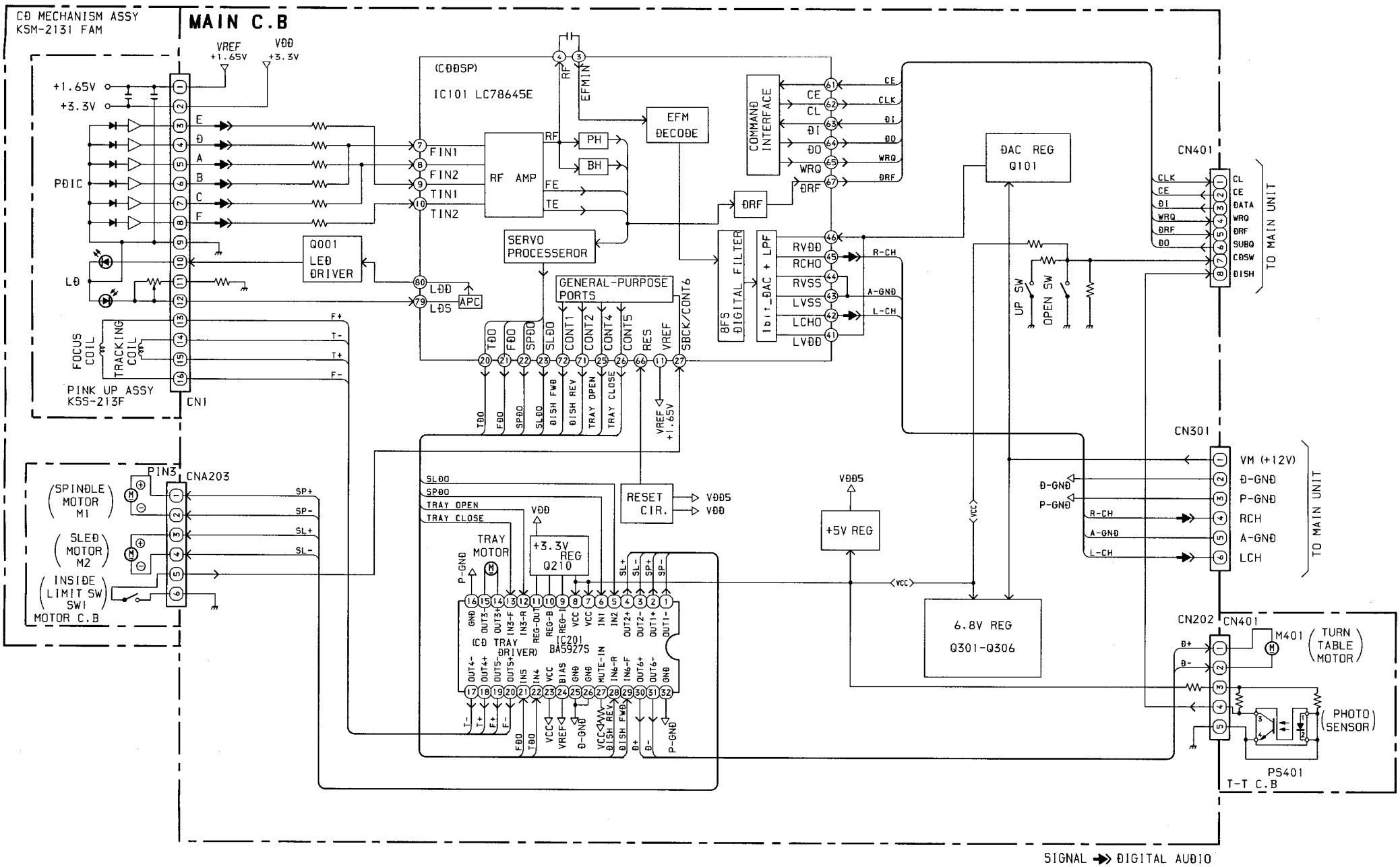
2SC3052F

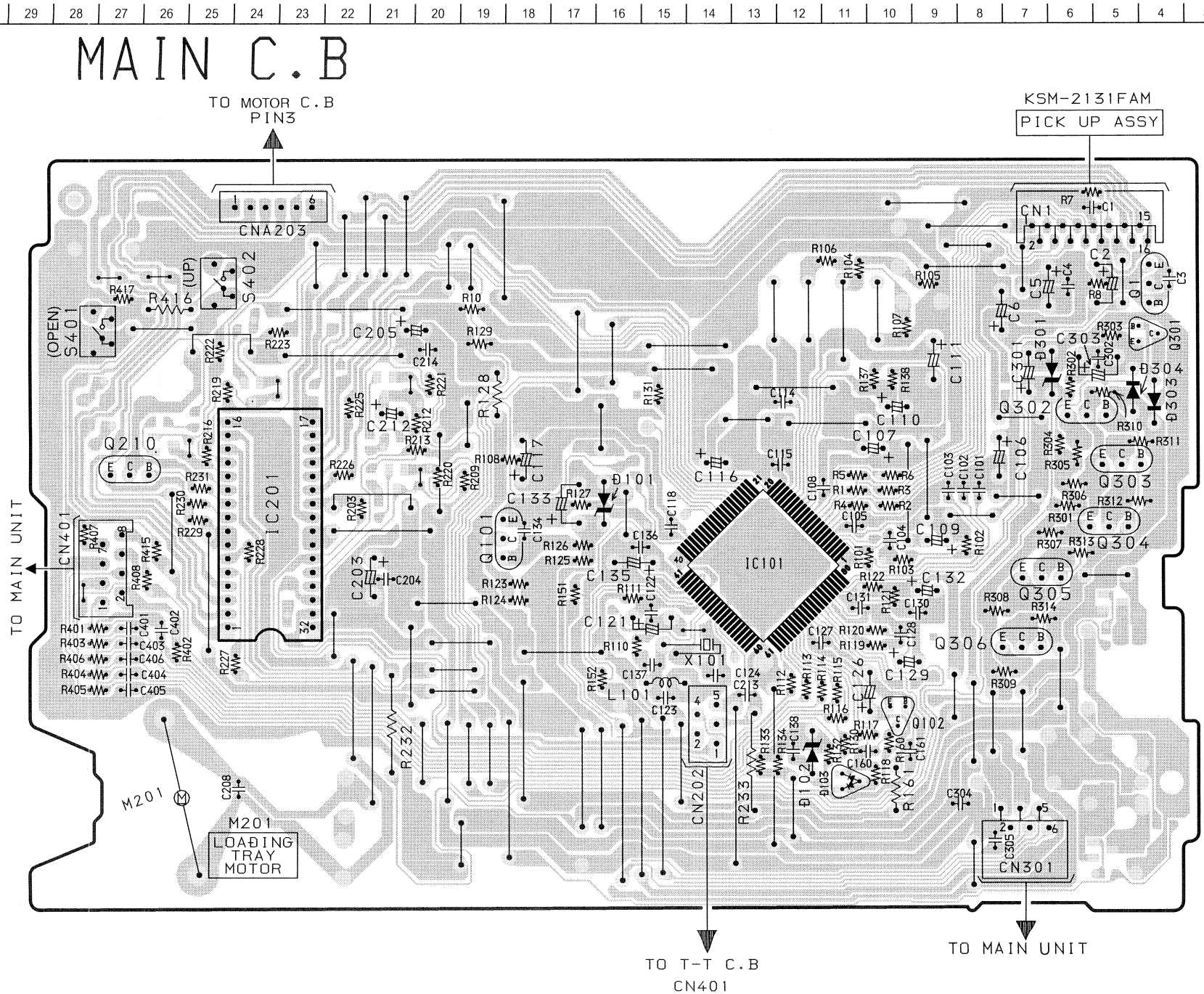


RT1N 141C

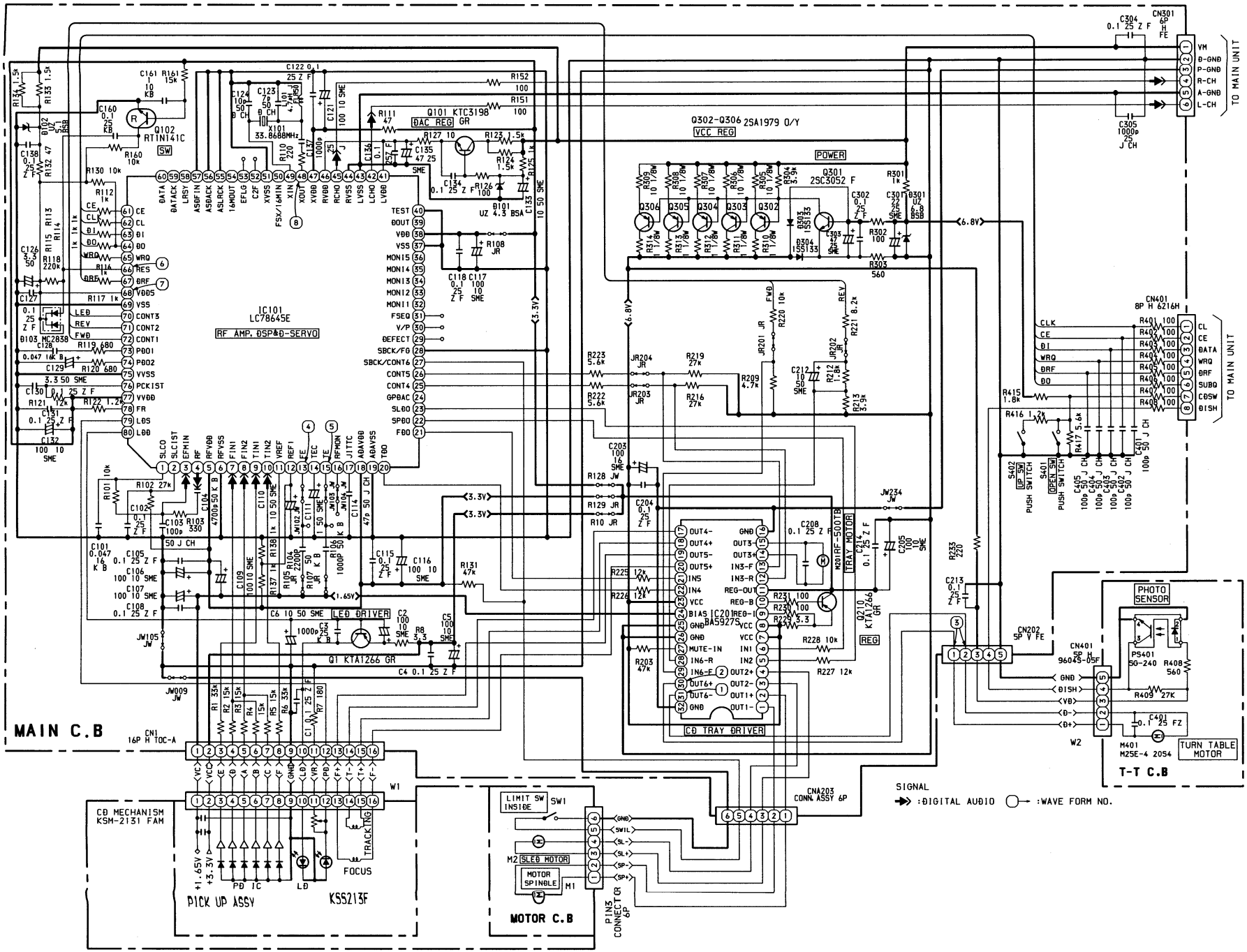
2SA19790/Y
KTA1266GR
KTC3198GR

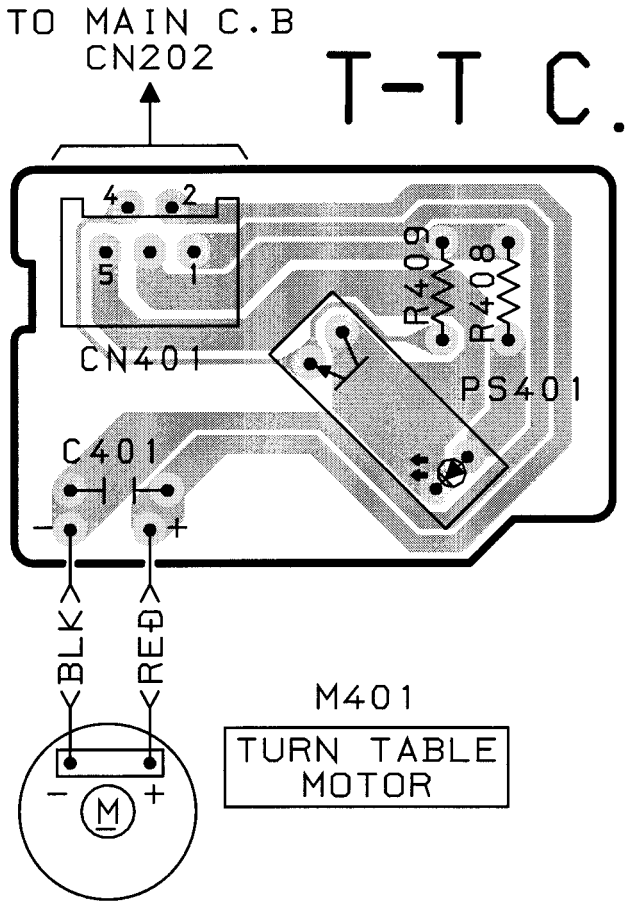
BLOCK DIAGRAM-1/1

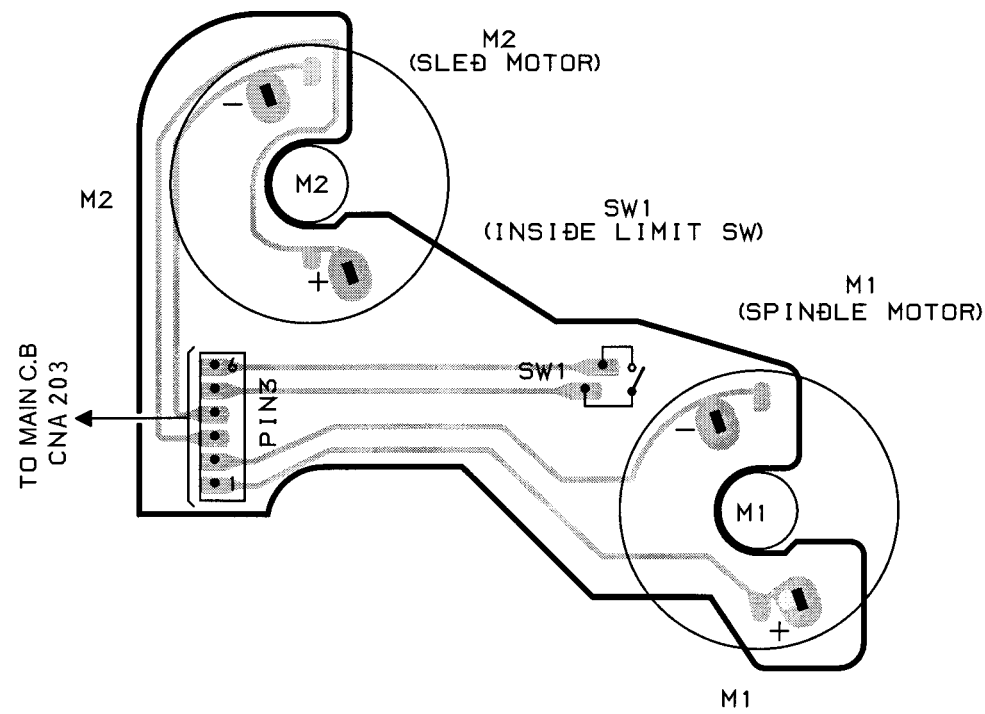



MAIN C.B
TO MOTOR C.B
PIN3
KSM-2131FAM
PICK UP ASSY
TO MAIN UNIT
TO T-T C.B
CN401
TO MAIN UNIT
CNA203
CN1
CN401
CN202
CN301
IC201
IC101
Q210
Q101
Q102
Q301
Q302
Q303
Q304
Q305
Q306
X101
L101
M201
M201
LOADING
TRAY
MOTOR
S401
(OPEN)
S402
(UP)

SCHEMATIC DIAGRAM-1/1



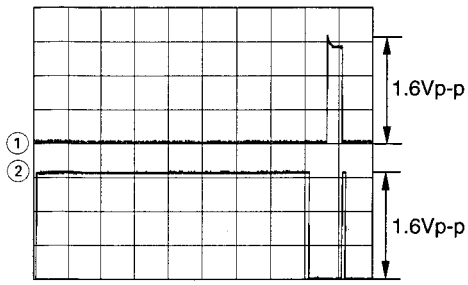

TO MAIN C.B
CN202
T-T C.B
4
2
5
1
CN401
R409
R408
PS401
C401
BLK
RED
M401
TURN TABLE
MOTOR
M


MOTOR C.B
M2
(SLED MOTOR)
M2
SW1
(INSIDE LIMIT SW)
M1
(SPINDLE MOTOR)
SW1
TO MAIN C.B
CNA 203
PIN3
M1
M1

WAVE FORM-1/1

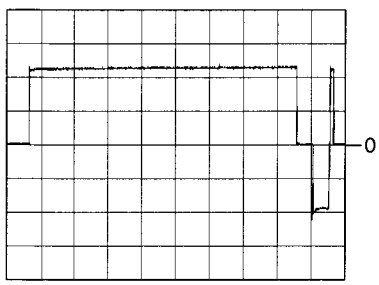
① IC201 ㉛ (OUT6-)
② IC201 ㉚ (OUT6+)

VOLT/DIV: 500mV
TIME/DIV: 200mS



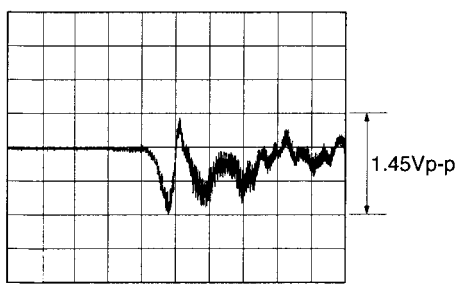
③ Between CN202 ① and ②
(② Pin: 0 Level)

VOLT/DIV: 1V
TIME/DIV: 200mS



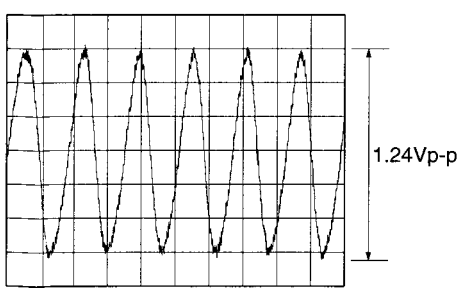
④ IC101 ⑬ (FE)

VOLT/DIV: 500mV
TIME/DIV: 5mS



⑤ IC101 ⑮ (TE)

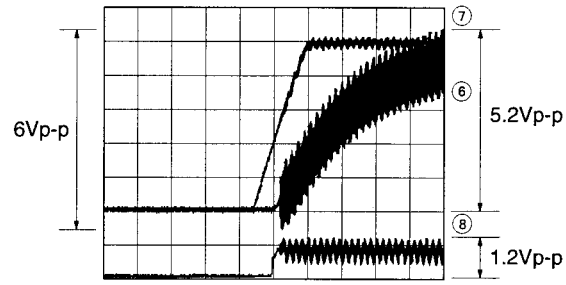
VOLT/DIV: 200mV
TIME/DIV: 200µS



⑥ IC101 ㊻ (RES)
⑦ IC101 ㊽ (VDD5)
⑧ IC101 ㊽ (XOUT)

VOLT/DIV: 1V
TIME/DIV: 10mS

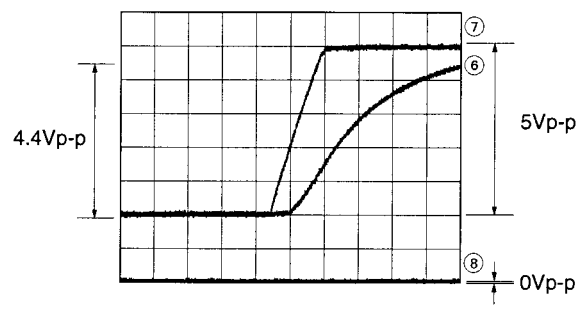
(POWER ON)



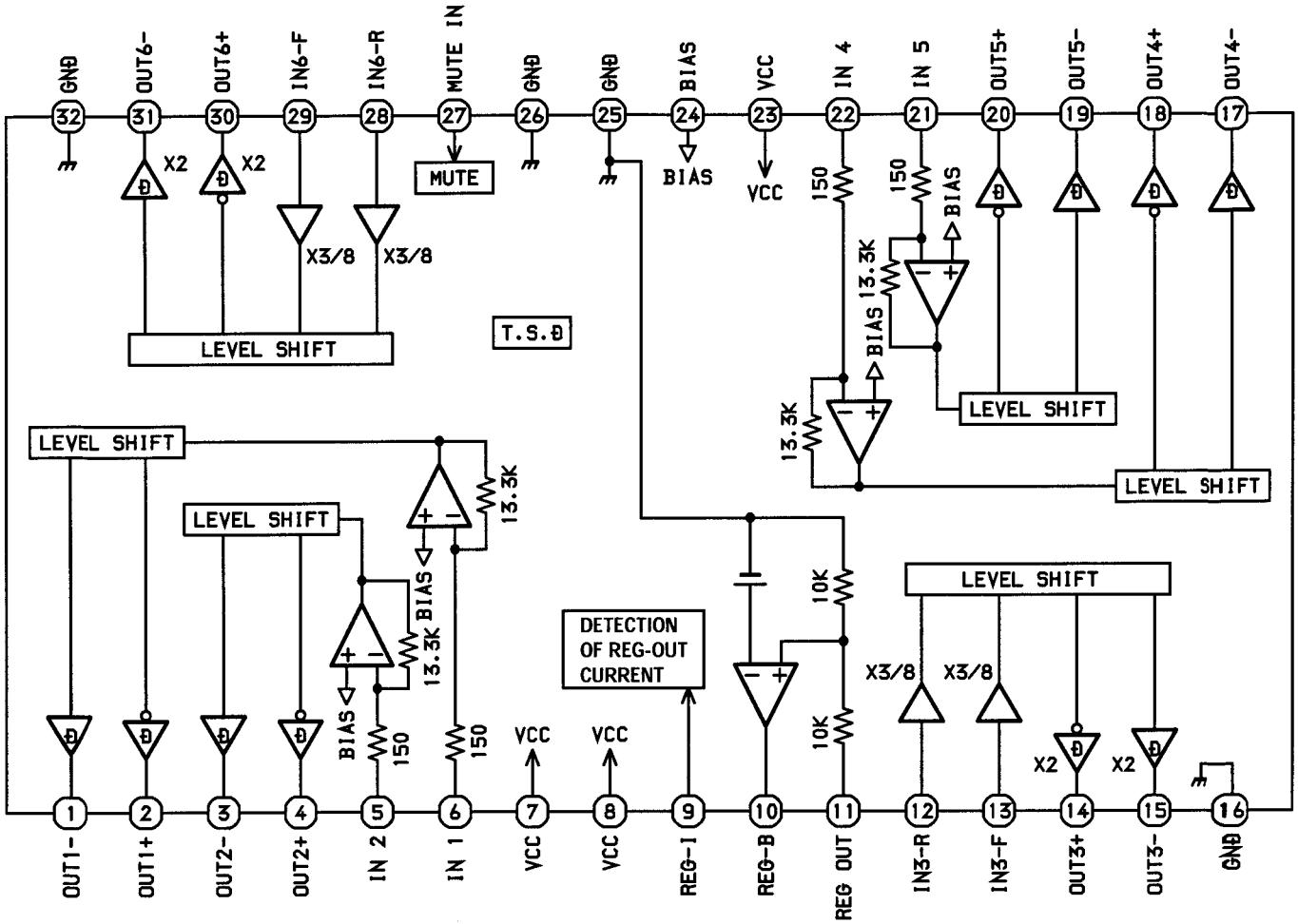
⑥ IC101 ㊻ (RES)
⑦ IC101 ㊽ (VDD5)
⑧ IC101 ㊽ (XOUT)

VOLT/DIV: 1V
TIME/DIV: 10mS

(POWER OFF)



IC BLOCK DIAGRAM-1/1
IC, BA5927S



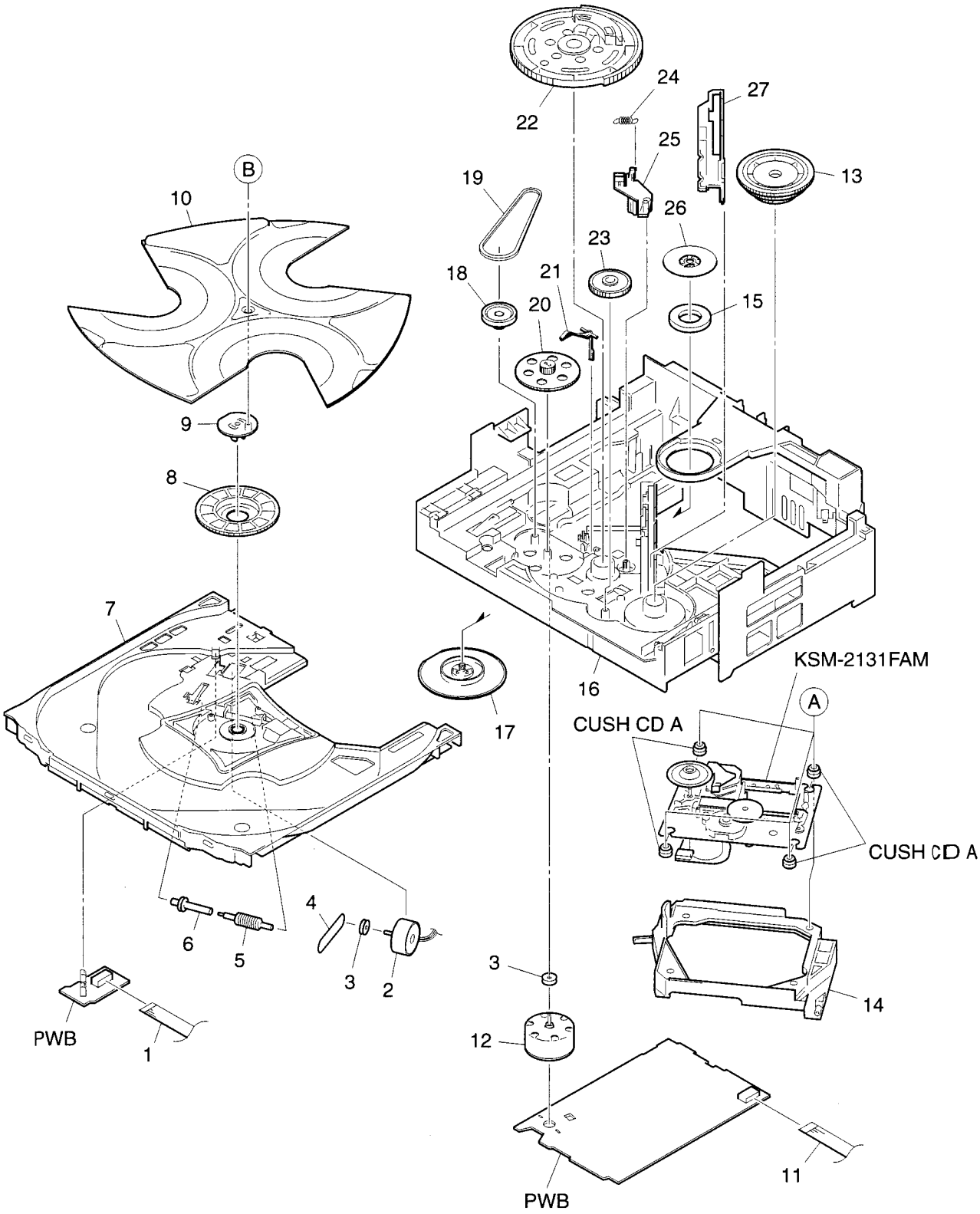
IC DESCRIPTION-1/1 (LC78645)-1/3

Pin No.	Pin Name	I/O	Description	
1	SLCO	O	Slice level control	Control output.
2	SLCIST	I		SLCO output current adjustment resistor connection pin.
3	EFMIN	I		RF signal input pin.
4	RF	O	RF monitor pin.	
5	RFVDD	—	RF power supply pin.	
6	RFVSS	—	RF ground pin. Must be connected to 0V.	
7	FIN1	I	A+C signal input pin.	
8	FIN2	I	B+D signal input pin.	
9	TIN1	I	E signal input pin.	
10	TIN2	I	F signal input pin.	
11	VREF	O	VREF voltage output pin.	
12	REFI	I	Reference voltage output setting pin.	
13	EF	O	FE signal monitor pin.	
14	TEC	O	TE signal LPF capacitor connection pin.	
15	TE	O	TE signal monitor pin.	
16	RFMON	O	RF internal signal monitor pin.	
17	JITTC	O	Jitter detection capacitor connection pin.	
18	ADAVDD	—	Servo A/D, D/A supply pin.	
19	ADAVSS	—	Servo A/D, D/A ground pin. Must be connected to 0V.	
20	TDO	O	Tracking control output pin. D/A output.	
21	FDO	O	Focus control output pin. D/A output.	
22	SPDO	O	Spindle control output pin. D/A output.	
23	SLDO	O	Thread control output pin. D/A output.	
24	GPDAC	O	Servo D/A general-purpose output pin. (Not connected)	
25, 26	CONT4, 5	I/O	General-purpose input/output pin 4, 5.	Controlled by commands from the microprocessor. Any of these that are unused must be either set up as input pin ports and connected to 0V, or set up as output pin ports and left open.
27	SBCK/CONT6	I/O	General-purpose input/output pin 6, or subcode read clock input pin.	
28	SBCK/FG	I	Subcode read clock input pin/FG signal input pin/external emphasis setting pin. Set to command -pin function. Must be connected to 0V.	
29	DEFECT	O	Defect pin. (Not connected)	
30	V/P	O	Rouge servo/phase control automatic switching monitor output pin. "H" for rough servo and "L" for phase servo. (Not connected)	
31	FSEQ	O	Synchronization signal detection output pin. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree. (Not connected)	
32-36	MONI1, 5	O	Internal signal monitor pin 1, 5. (Not connected)	
37	VSS	—	Digital ground pin. Must be connected to 0V.	
38	VDD	—	Digital power supply pin.	
39	DOUT	O	Digital OUT output pin. (Not connected)	
40	TEST	I	Test input pin. Must be connected to 0V.	

Pin No.	Pin Name	I/O	Description	
41	LVDD	—	L channel D/A converter	Lchannel power supply pin.
42	LCHO	O		L channel output pin.
43	LVSS	—		L channel ground pin. Must be connected to 0V.
44	RVSS	—	R channel D/A converter	R channel ground pin. Must be connected to 0V.
45	RCHO	O		R channel output pin.
46	RVDD	—		R channel power supply pin.
47	XVDD	—	Crystal oscillator	Crystal oscillator power supply pin.
48	XOUT	O		Connection for a 33.8688MHz crystal oscillator pin.
49	XIN	I		
50	FSX/16MIN	I/O	7.35kHz synchronization signal output pin. DF, DAC external clock input pin. (Not connected)	
51	XVSS	—	Crystal oscillator	Crystal oscillator ground pin. Must be connected to 0V.
52	C2F	O	C2 flag output pin. (Not connected)	
53	EFLG	O	C1, C2 error correction monitor pin. (Not connected)	
54	16MOUT	O	16.9344MHz output pin. (Not connected)	
55	ASLRCK	I	Antishock mode	L/R clock input pin. Must be connected to 0V when unused.
56	ASDACK	I		Bit clock input pin. Must be connected to 0V when unused.
57	ASDFIN	I		L/R channel data input pin. Must be connected to 0V when unused.
58	LRSY	O	Digital data output	L/R clock output pin. (Not connected)
59	DATACK	O		Bit clock output pin. (Not connected)
60	DATA	O		L/R channel data output pin. (Not connected)
61	CE	I	Microprocessor interface	Chip enable signal input pin.
62	CL	I		Data transfer clock input pin.
63	DI	I		Data input pin.
64	DO	O		Data output pin. (Nch open drain output)
65	WRQ	O		Interruption signal output pin.
66	RES	I	Reset input pin. This pin must be set low briefly after power is first applied.	
67	DRF	O	Focus ON detect pin.	
68	VDD5	—	Microprocessor interface power supply pin.	
69	VSS	—	Digital ground pin. Must be connected to 0V.	
70	CONT3	I/O	General-purpose output pin 3. (Not connected)	Controlled by commands from the microprocessor . Must be set as an input pin and connected to 0V or set as an output pin and left open when unused.
71, 72	CONT2, 1	I/O	General-purpose output pin 2, 1.	

Pin No.	Pin Name	I/O	Description	
73, 74	PD01, 2	O	PLL	Phase comparison output pin 1, 2 to control built-in VCO.
75	VVSS	—		Built -in VCO GND pin. Must always be connected to 0V.
76	PCKIST	I		Resistor connection pin to set current for PD01 and 02 outputs.
77	VVDD	—		Built-in VCO power supply pin.
78	FR	I		Resistor connection pin to set the frequency range of built-in VCO.
79	LDS	I	Laser power detection signal input pin.	
80	LDD	O	Laser power control signal output pin.	

MECHANICAL EXPLODED VIEW-1/1



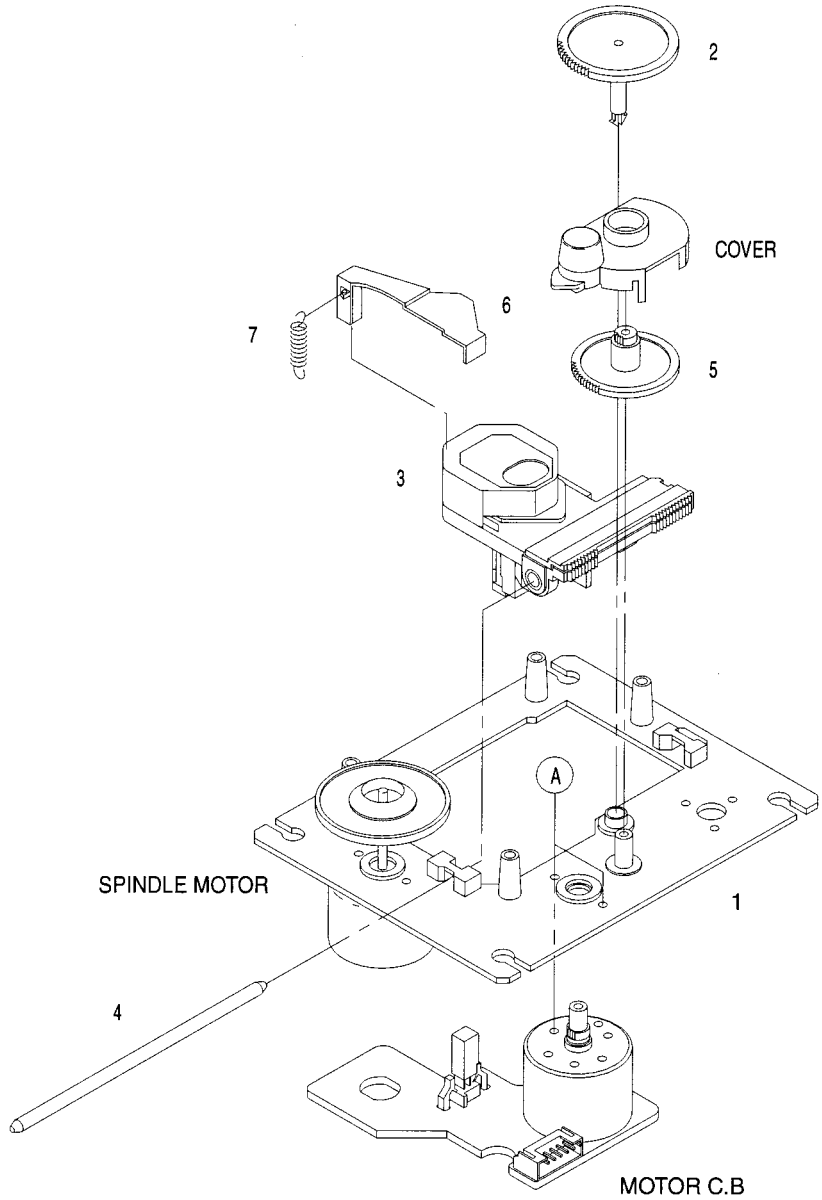
MECHANICAL PARTS LIST-1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8B-ZG2-602-010		FF-CABLE,5P 1.25 185MM
2	87-A91-982-010		MOT,M25E-4 2054
3	84-ZG1-267-010		PULLEY,LOAD MO 8
4	8B-ZG2-246-010		BELT,SQ 1-96.1
5	8B-ZG2-241-010		GEAR,WORM
6	8B-ZG2-236-010		PULLEY,WORM
7	8B-ZG2-001-010		TRAY,2K
8	84-ZG1-269-010		GEAR,MAIN TT 4
9	84-ZG1-288-010		LEVER,TT NAT
10	8B-ZG2-002-011		TURN TABLE,2K
11	83-ZG3-604-010		RING,MAG 2
12	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
13	8B-ZG2-226-010		GEAR,TRAY
14	8B-ZG2-206-010		HLDR,MECHA
15	8B-ZG2-601-010		FF-CABLE,16P 1.0 115MM<EXCEPT YZD4NCC>
15	8B-ZG2-601-010		FF-CABLE,16P 1.0 115MM<YZD4NCC>
16	8B-ZG2-201-010		CHAS,MECHA
17	84-ZG1-291-110		HLDR,MAGNET 4 NAT
18	84-ZG1-271-010		PULLEY,RELAY 8
19	84-ZG1-209-010		BELT,SQ1.8-117.7
20	84-ZG1-206-110		GEAR,RELAY
21	83-ZG3-213-010		LVR,SW
22	8B-ZG2-221-010		GEAR,MAIN CAM
23	8B-ZG2-231-010		GEAR,TRAY RELAY
24	84-ZG1-211-010		SPR-E CAM S
25	8B-ZG2-216-010		LEVER,CAM
26	81-ZG1-255-110		PLATE,MAGNET MK2
27	8B-ZG2-211-010		PLATE,MECHA CAM
A	81-ZG1-271-010		S-SCREW MECH REAR
B	87-B10-331-010		VF+3-6 BLK

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green		

CD MECHANISM EXPLODED VIEW-1/1 (KSM-2131FAM)



CD MECHANISM PARTS LIST-1/1 (KSM-2131FAM)

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	9X-264-629-220		MOTOR CHASSIS ASSY(MB)(FR)
2	92-626-907-010		GEAR(A)(S)
3	87-A90-836-010		OPTICAL PICK UP KSS-213F
4	92-626-908-020		SHAFT SLED
5	92-627-003-010		GEAR(B)
6	92-646-697-020		LENS SHUTTER(F)
7	92-646-702-010		SPRIG EXTENSION
A	97-621-255-150		SCREW+P2-3

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110-8710, JAPAN TEL:03 (3827) 3111

0251431 Printed by: Schaltungsdienst Lange, Berlin (GERMANY)